THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XVIII
NUMBER 2

FEBRUARY, 1910

WHOLE
NUMBER 172

THE PUBLIC HIGH SCHOOL[1]

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It is unnecessary to state that nothing new will be presented on the subject to be discussed informally this morning. As the years go by, however, experience must give us data from which we may gain light and change our course somewhat so as to come nearer the fulfilment of what we are striving for.

It is interesting to note attempted changes in educational nomenclature. In the '80's the Bureau of Education, through Dr. William T. Harris, commissioner of education, succeeded in bringing about the adoption of the threefold division of schools into elementary, secondary, and collegiate or technical. All felt certain that an advanced step had been taken. It is curious in listening to the conversation of teachers and to their addresses to note that the term "elementary" seems to have been generally adopted, that "secondary" has gone into the background, and that today we hear "high school" as commonly as before the term "secondary" was agreed upon.

It is also a matter of some importance to note the stress that has been laid upon the peculiarities of the high school and the secondary school as distinguished from each other. In the early '90's President Butler of Columbia wrote interestingly on the

[1] A stenographic report of an address delivered at the Twenty-second Educational Conference of the Academies and High Schools in Relations with the University of Chicago, November 20, 1909.

subject-matter of the curriculum in the high school; and also on the need of professional training for teachers in the high school. He took the broadest survey of the question of the education of boys and girls between the ages of thirteen and eighteen that had been made up to that time. He laid emphasis upon the necessity for training in ethics; for training that should be developed out of the experience and the life of those boys and girls. After we had crossed the line over into the present century, the president of Yale took a turn at this terminology, and wrote a rather interesting paper, some erroneous assumptions in which will form the basis of my remarks regarding the high school. President Hadley objected, as you probably all know, to placing the public high school under the term, secondary school; and he, by implication, opened the way for a quasi-acceptance of some defects in high-school work as inherent in the method and aim of that school. He laid stress upon the need for training to precision in thinking in the secondary school, assuming that the secondary school is limited to fitting boys and girls for college by means of a classical course. He did not say that precision is unnecessary in the broad course of the high school; but if precision in thinking and accuracy in speech are the prime requisites in training for college, and those requisites are made the basis for differentiation of secondary training from high-school training, then one is justified in saying that the implication is that the high school trains in a general way, but one must not expect when within its precincts to hear thought expressed accurately or to find the boys and girls thinking clearly and definitely. While it may be true that President Hadley did not intend to say anything so severe with regard to high-school work, yet one sometimes wonders whether it is not in accordance with fact that in our effort to give the boys and girls a slight acquaintance with every field of learning we do tend to develop a bird-like, flitting tendency in the minds and in the habits of thought and expression of those boys and girls.

That the high school certainly will evolve into a great school with many different courses is something that one may feel justified in predicting. In some cities such an evolution has

already taken place. In St. Louis every high school has a strictly classical course fitting for college and has many technical or, as some like to call them, vocational courses. In Chicago that evolution has taken place in a few of the high schools—about half of them. It is hoped that all high schools will eventually offer their students in all parts of the city a choice in a programme which will allow them to fit for this or that line of industry or commercial life, or for college or professional life. Care should be taken, however, to distinguish many courses of study from an excessive number of subjects in each course of study.

In discussing the high school in that article which appeared in the early part of this century, the writer did say that instead of being characterized by precision of thought and accuracy of language, the necessities of the case demanded that high-school courses should be marked by scope and flexibility; and while we with our fondness for breadth were greatly pleased with the idea of the work having scope and flexibility, we did not pause long enough to consider whether the mind that is dealing largely with scientific subjects or the mind that is dealing largely with commercial subjects, works, after all, in a different way in getting a grasp on its subject-matter from the mind that is working largely on the dead languages.

But there is a point on which after visiting many high schools within the last few months, high schools in different cities, I may say one is justified in criticizing the high school; everywhere there prevails the idea that our work must be so done that when the boys and the girls graduate they must be slightly in touch with every subject known to man, but they need not necessarily think and speak with continuity and exactness in any one of the multitude. The result has been that the work of the high school is not so fully or so thoroughly organized as was the work in the high school in the days when it was limited to the same branches to which President Hadley limits the secondary school. There is no doubt that the work in the organization of the classical courses has been more thoroughly done than as yet has the work in the vocational, industrial, and general courses.

It is with some hesitancy that I make my point with regard to what seems to me to be the desirable thing pertaining to the courses in the high school; and yet as this audience is composed entirely of those who are doing work in the higher fields of education, I must trust to being able to make myself understood so that I shall not be consigned to the category of drill mistress. In the elementary school there is nothing which frightens the teacher like the word "drill"—that is, a modern, up-to-date teacher. It has become dangerous to use the word, and I certainly can smile over the dangerous condition because I recall that I was one of the most ardent in the attempt to do away with the idea of drill, and I still deplore meaningless drill. In the high school the word "narrow," the narrow programme, the old narrow course of the high school, is as great a bugbear as is that word "drill" in the elementary school, and yet I believe that in order to place the high-school work on such a plane that the young men and young women graduating from that school shall go out with something of a technique in learning and in the use of that which they have learned, we must not reduce the number of courses offered, but we must reduce the number of subjects gathered in each course.

A mind, mature or immature, which prepares lessons in four or five different lines of study, day after day, fails of an intimacy with the movement of the subject-matter with which it is dealing; fails of knowing something of the motif that lies in that which has been marked out as a subject of study for boys and girls between thirteen and eighteen years of age. If we could plan our courses of study so that in each course there were three subjects upon which we expect the boys or girls to put all the intensity of power possible and then if there were a line of work which would be not so much for the training in precision of thought as for awakening them to the social environment and to the movements of society, and also for developing the artistic and aesthetic side of the nature, we should improve upon the marsh-like results of the present extensive study courses. In that fourth course intensive preparation should not be expected, but the type of work that arises naturally out of the genuine social,

intellectual intercourse between educated men and women on one hand and boys and girls of high-school age on the other should be the outcome.

There is a strange interpretation of the meaning of the development of the social life in the school. Many years ago, in talking with a number of teachers, I spoke at some length upon the necessity for developing the social life, the social method of attack in the schools. In going out I chanced to be behind two who had been present throughout the talk and I heard one say to the other: "I never supposed that Mrs. Young was so given over to dancing and card playing." When in the high school and in the elementary school one is told, "We are trying to do something for the social life and we manage to have them dance five minutes after luncheon," one wonders if we shall ever know what is meant by the development of the social life in the school. Young people should have the opportunity to dance, to have the light give-and-take in conversation, but there is a social life, there is a method of handling subject-matter with a class which develops all the social and co-operative powers the teacher and the children have. Recently in a class in algebra the teacher after assigning the lesson warned the boys and girls not to discuss the problems together and not to compare their answers. Will the day ever come when all through the length and breadth of this land, in the public schools at least, knowledge will be so manipulated, will be so treated that our boys and girls will work helpfully together instead of carrying their answers around in their pockets each almost hoping that nobody else has all of the correct answers? We are far away, as yet, from the idea of the social handling of the subject-matter when we are teaching. We are still endeavoring to see whether the slow ones know what all the others in the class know, deceiving ourselves by calling such endeavor stimulation of thought.

Our work in the high school, the flitting from subject to subject, has developed in this country a conspicuous vagueness in the use of language. All day long we hear the teachers in the high, and in the secondary school also, saying: "What do you mean?" "Who understands what he is trying to say?" "Does anyone

understand that?" What does it mean? It means that there has not been intensity of interest in the material which is going to be threshed out in the class, and that the mind of the student is not inquisitive about the subject-matter and desirous of tracing what it has grasped and what it asks, all in language so clear that teacher and classmates will understand and work on the problem as put before them. Is there any other explanation of this constant effort to secure from boys and girls between thirteen and twenty years of age a correct, a fair, a plain statement of what they have in mind?

In the laboratory (and the laboratory was going to save us, we thought, when it was introduced) one finds an indefiniteness in the scientific attitude comparable to the vagueness of language in academic subjects. Along with the work in the laboratory, there would be, on the social side, the coming together of two or more persons to see how the experiments have differed, or wherein they have resembled each other, how they have worked out; undoubtedly, there would be conversation about results. In walking about leisurely in the science laboratories here and there as the experiment in physics or chemistry is progressing, one gathers bits of information about the party which the student attended the evening before or the parties which the other students are going to attend that evening. This sort of playing with the work is an indefiniteness in the treatment of science that will never develop a scientific attitude of thought which the boys and girls should acquire in the high-school laboratories. If they have not that attitude, the school fails of its purpose.

Let us turn to the arts: recently a teacher of manual training in a high school said that he almost wished the boys might come to him without having done any work in manual training in the elementary school. When asked what he thought was the cause of his dissatisfaction, he said: "They come here without caring whether the work is exact or not. They play with the tools." There is something worth considering in his reply, and yet one wonders if there is a lack of educational insight in the mind that deals with advanced boys and girls, if it has never made a study of the method of approach to learning by younger

children. Thirty years ago many of the teachers of German in the high schools said that they usually placed in the same entering class pupils who had studied German four years in the elementary school and children who had never studied a word of German, and that in three months one would not know them apart. Latin was taught in the elementary schools for a time and the children studied Latin two years and enjoyed it and the teachers enjoyed it. Later when these children entered the high school they were told that now they would begin at the beginning and learn Latin. It seems to be the case that when we get over into the arts, or into the languages, we find the same conditions. What is it that causes this imperfection? Has the idea of great scope and flexibility without precision and accuracy extended down into the lower schools? Is it possible that in changing from beginning with the deductive to beginning with the inductive method we have forgotten that the process includes induction *and* deduction, not induction *or* deduction? It seems as if this is a diatribe against the teacher. It is not a diatribe, not even a jeremiad, but an endeavor to study out as one goes about in the high schools in Chicago and elsewhere the cause of our difficulty. Is it that one is expecting too much? No; it cannot be that, because President Hadley said that in the secondary schools we should develop precision of thought and accuracy in the use of language, and one knows that the boys and girls in the general and vocational courses in the high schools have minds of as fine a type as those who are engaged in preparing for college. Therefore there arises the necessity for trying to see what can be the cause of indefiniteness in the laboratories; vagueness in the language; imperfection in the manual and industrial arts, and crudity in art itself.

Is there nothing definite for which we can aim? Must accuracy rest on the old drill of the old drill-master? Is there not something all along the line that can be acquired by minds and known in its entirety and with accuracy up to the point to which that mind attains? That is the question which confronts one who goes about through the high school seeing the work done in it. Our high school is an absolute essential to this

country and it is to the glory of the high school that it is drawing more and more of the children from all ranks in life, and that among the poorest people there is every effort made to keep the boy and the girl in school until a high-school education shall have been secured. As one recognizes with appreciation the great things accomplished by the high school, one longs at the same time for that *more* which President Hadley would give to the secondary school as its peculiar birthright. To secure that *more* the number of subjects should be reduced; the programme of studies should be less pretentious.

Three weeks ago I was in the East visiting at the house of a friend, an inventor, a man who probably knows his subject better than anyone in this room, even though that one may teach the subject. In conversation I spoke of the great advance made in the methods of teaching. And while speaking of some of the defects of the young folks, I said, "The young girl has a better balanced view of life when she graduates from the high or the normal school today than the young girl had when I graduated; and I think if you would look back you would say the same about the boys." "Well," he said, "That all may be." Then he called his daughter who is in the third year of a private secondary school, and asked her to bring the work on physics which she was studying. She brought it and he said: "Look at that book. It should take years to compass what is in it and she is going through the whole this year. And," he added, "that is not the worst of it. She is not getting at things, but she is perfectly satisfied, because when her teacher tries her on the printed page she answers satisfactorily all the questions put to her." Then he turned to a cut on his own subject and said, "Will you explain that to me? It is wrong, but when I started to explain to E. that it was wrong and wherein, she said, 'Oh, don't mix me up. I have learned that lesson.'"

One more point should be made here: The period of recitation should be lengthened. The number of subjects carried simultaneously by boys and girls, ranging from twelve or thirteen to seventeen or eighteen years of age, should be reduced and the period of recitation lengthened. An onlooker watching the

boys and girls in class learns to know when the time is approaching to flit to something else. There begin to be evidences of a feverish weariness with the old and a desire for a new stimulus. After thirty minutes the young students call for new stimulus. When they finish high-school work and go out into life one fears, as one sees them becoming restive after thirty minutes, that they, too, in the outer world will be harassed by the same feverish longings for change that harass you and me.

Emerson says: "Life is a search for power." At first thought one might suppose he means a search for money, high position. But further thought brings a full realization of the larger view that it is a search to get control of the self, and to use one's endowments for the benefit not only of the self but of the family and the friends, the community in which one works. Are we bearing this in mind as we teach from day to day and hear coming from our own lips, "No, you are wrong. What did you say? Sit down. Who can answer my question?" Close upon these utterances of ours, do we hear the refrain, "Life is a search for power, and these boys and girls are striving for and acquiring that power as they work with me"?

Turning to the topic of the teacher in the high school, let me confess to an overwhelming sense of having undertaken to discuss an almost non-discussable question. I purpose taking up only one point on the subject of the teacher. You will bear me out, I presume, in saying that after the qualifications of individuals have been discussed the question which is most in evidence today in the high school is the question of men teachers versus women teachers; I have looked at the women with a good deal of interest and I have looked at the men too with a good deal of interest, in my visits. I have been trying to make out why the question is so common, and also to answer the question which is of far deeper importance: Are the women of any special value in the high school?

One thing gives me great pleasure. It is that the women who are entering the ranks as high-school teachers have a surer basis for their training in their subjects than was the case when the high-school principal, if a woman teacher was assigned to the

school, felt that she was so weak in everything that the best way to strengthen her would be to have her teach a class in each department in the school. As the women are beginning to teach subjects in which they are well prepared, they are showing the value of their college training: and, as an older woman looking at the younger women starting out in life, it is with gratification that I have observed the surety of the intellectual grasp of most of the young women in handling subject-matter in their classes—I call any woman young who is below fifty. However, one thing disturbs me. Time, I presume, with the great influx of women into the high school and college as teachers will remedy this. If I understand the idea of a school having the atmosphere of a well-bred social community, there must be something that men teachers as men contribute and something that women teachers as women contribute. I do not mean to say that there are a masculine mathematics and a feminine mathematics. Two points will determine the direction of a line just as certainly in the feminine mind as in the masculine mind; but sometimes I think it is unfortunate that the school is not receiving so much from the addition of women as a class to the teaching corps in the high school as it should receive; the trouble lies in the condition that intellectually the women are men-trained. We all accept complacently the slap that the man gives—we have not got beyond that yet—but when a woman gives a slap, another condition confronts us. The principal of a high school said to me this week, "If a man teacher makes a girl mad the girl gets over it within twenty-four hours; but if a woman teacher makes her mad, the girl never gets over it." I suppose there is something in his wholesale condemnation of the influence of women teachers. I don't need to work it out with you. There is something of the man teacher in the intellectual attitude of some women teachers who are men-trained, but time will change this, when we have more women teaching in college, and they are women with sufficient force to be women in their bearing, not imitators of a certain type of man.

You must bear with me in order that I may make myself plain in this matter and must let me speak of two teachers I have

seen within this week. One was a woman teaching mathematics, and the atmosphere was most charming. It was mathematics that she taught and yet when the boy floundered and stumbled around in his demonstration it was a woman, a well-bred woman from the foundation up, who dealt with him and held him to his proposition until his mind worked at it with what he knew. Then again I was in a class in science. In other classes I had heard the laugh of counterfeited glee which often painfully mars a school whose student body is composed largely of girls and its teaching corps largely of men—the laugh that assures the teacher that his wit is remarkable and at the same time assures the butt of the wit that it isn't worth while to be disturbed, that the girls sympathize with the classmate. From a class in which I heard the laugh of counterfeited glee I went into a class in science, and may I never forget that class. I spoke of the other teacher as the woman, well bred, knowing and caring for the boys and girls under her instruction and influence. Here in the science room I was conscious of an atmosphere generated by a well-bred man, who was personally interested in the boys and girls. There was the indescribable difference between the man and the woman, but here too the atmosphere of the room was blessed. The young people were serious and happy in their work, dealing with the subject thoroughly, keenly. They were sincere through and through. What was it? I cannot tell you. I know that in one case it was the personality of a noble woman, and in the other, the personality of a noble man, that made life pure and holy. I thought how great it is for these boys and these girls to come under the indescribable influence that emanates from that woman and from that man.

ON SCIENTIFIC STUDY OF HIGH-SCHOOL PROBLEMS[1]

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I think there is somewhat less enthusiasm for the science of education among high-school teachers than there is among teachers in the lower schools. High-school problems, we are told, all turn upon a better knowledge of subject-matter, at least all of the problems that concern the individual teacher. Furthermore, the personal equation counts for much in high-school teaching, and the personal equation, the critics of the science of education tell us, is too complex for any of our present methods of scientific manipulation.

Finally, when anyone with sufficient optimism to rise above these objections still insists on advocating a scientific study of high-school matters, he is met with the very pertinent inquiry, Where are examples of such studies to be found? I confess frankly that I should not be able from my present knowledge to produce material which would justify this paper if I were obliged to confine myself to reports of work finished and ready to hand down as a safe basis for final scientific conclusions. There are of course some such studies. I think my colleague, Professor Dearborn, has shown with clearness and finality that high-school grades and college grades are so closely related that the reports of high schools—at least of the class which he studied—are the best possible bases for admission to college. I commend his paper[2] to any of you who are in doubt regarding the possibility of a scientific study of high-school problems.

[1] An address delivered November 20, 1909, at the Twenty-second Educational Conference of the Academies and High Schools in Relations with the University of Chicago.

[2] *Bulletin of the University of Wisconsin*, No. 312: High School Series No. 6. August, 1909.

Reference to this and like studies is, however, not the type of discussion which I intend to present in this paper. I believe that the scientific study of high-school matters will never progress as it should until a large circle of workers are engaged in such studies. High-school problems are indeed complex. There are variable factors which no individual could expect to compass. The only hope is through organized co-operation. Therefore I believe that it will be worth while for us to attempt to formulate with some definiteness the lines along which the study of high-school problems may progress, in the hope that many will become interested in such problems and a body of scientific knowledge grow out of their united efforts.

Let us begin by considering some of the problems related to language teaching. There is a body of very significant scientific material on the general nature of language which I believe that every high-school teacher ought to know. How language originates seems perhaps at first sight a remote question but in this day when we try to understand everything in terms of its origin such general investigations are not unimportant to the teacher of language.

Assume, however, that we do not demand such an introductory study of the nature of language; assume that we come directly to our problem of arranging instruction for high-school pupils. We all recognize at least one distinction in the method of such teaching, namely, the distinction between the natural and the analytical, grammatical method. Is it the business of the French and German teacher to induct the student into the use of the foreign system of expression in the same way that the child learns its mother tongue, through imitation and without emphasis on the structure of the language, or is it the purpose of high-school training to give the child a clear notion of language structure? Do we aim at this higher level of acquisition of language when the student passes out of the vernacular to another tongue to give a new power by leading him to take an entirely different attitude toward language, or are we merely trying to enlarge the scope of his expression, keeping it in kind like his everyday knowledge of his own language? Putting the

matter in terms, not of modern languages, but of the study of Latin and Greek, do we wish the student to acquire the ability to speak these languages, or shall we be contented if the students are able to work out through the use of Latin and Greek declensions and conjugations a better knowledge of the structure of all language and so of their own vernacular?

Given this one sharp contrast, how shall we proceed with our study? How are we to determine the advantages that would be derived from the one type of language teaching or the other? In the first place I wish to emphasize the principle that it is quite possible to begin the study of this question by giving an ordinary examination. Sometimes our specially prepared tests fail to give broad results just because they are special tests. If a student has been trained by the natural method, so that he has a certain facility of interpretation, it would very easily be possible to devise an examination of a grammatical sort which he could not pass at all, and we might thus miss the whole point of the inquiry. Furthermore, a student who had been trained chiefly through a grammatical study of language could very easily be examined to his decided disadvantage by a mere reading test. In general, we should note that if students of the science of education and teachers are to come to any appropriate relations they must begin by reworking ordinary school materials. Let us assume, therefore, as is commonly done, that both types of training, namely, that which would lead to the use of a language and that which would lead to a knowledge of the grammatical structure, are important for the student. Let us assume that a teacher, interested in the two phases of language instruction, sets his examination so as to include both types of material. These two types of material should now be separated in the tabulation of results in such a way as to give a sharp distinction between the two kinds of attainment under discussion. The time will come, I believe, when we shall make use of our examinations in such a way as to test not merely the general ability of the students who take these examinations but to emphasize with some degree of precision the exact type of the student's attainments. Thus, let an examination be set in

Latin or in one of the modern languages, and let the formal parts of all questions dealing with grammatical structure be tabulated on one hand and the parts of questions dealing with ability to use and interpret the language be tabulated on the other hand. Let these two types of knowledge be made the basis of two sets of classifications of students. The study may then be extended to include various schools so that we may see whether the two types of knowledge are exhibited to the same degree of perfection in students taught by different teachers or in students of different ages. Any one of these questions would justify a minute re-examination of an ordinary set of papers. We could ask whether certain schools or certain individual teachers are consciously or unconsciously emphasizing one phase of the work more than the other. I think it is very frequently true that a teacher is more interested in one type of work than in the other. He has, however, no means of comparing his type of influence upon pupils with the type of training given by other teachers who are controlled by other interests. We owe it to ourselves as teachers to make a minute examination of our own tendencies. If a group of ten Latin teachers would make a study of their own interests through the analysis of the examinations passed or not passed by their students, we should have a very valuable scientific study of the teaching of Latin. The material exists in every set of papers. All we need is the reworking of this material by someone interested in drawing clear distinctions.

Another phase of the matter was suggested a moment ago. What is the influence of maturity on language study? Are older children more capable of understanding structural facts, or are they more likely to be interested in interpretations? Which phase of a child's interest progresses more rapidly? What we need for any intelligent understanding of our high-school work in language is a description of the way in which this language function progresses in the normal individual under ordinary conditions. We need what the scientists in other spheres call the natural history of the process. If we could know how an ordinary child would assimilate a new language and

what its effects would be upon his grasp of all grammatical forms, we should then have a basis for remodeling our work as individual teachers and for organizing our general course of study in this field. One of the best studies that was ever made in educational psychology dealt with the natural history of the telegraphic language. We need some such careful study of foreign languages. Let the teacher keep examination papers of older and younger pupils. Let him get sets of papers at different stages of development of the same class and holding to one problem ask persistently what is the relation between knowledge of grammatical structure and knowledge of interpretations. With this sharply defined problem before him, the teacher might make a large contribution to the natural history of language.

I never make a plea for the re-examination of educational experience for scientific purposes without feeling the impulse to comment on the economy which would be effected by accepting this suggestion. Think of the slow progress which we make in our preparation of courses because we do not sift out our materials and state clearly the divergent results which impede our progress. The teachers of classics are very properly proud of the form on which their subjects are now cast. These subjects have been taught by generations and there has finally been reached, often without a clear recognition of how or why, a classification and a grading of the material of instruction such that the needs of the average pupil in the ordinary high school are fairly well met by the accepted course of study. It has taken a great many generations to work out this relatively successful method because no one has gone about the careful analysis of the problem from such a point of view as I attempted to suggest a little time ago. At the present moment there is coming into our schools a vigorous demand for a similar mastery of the modern languages. There is no time for us to work out in long generations the methods of teaching these languages. I think that German and French teachers could in the long run, even without a scientific study, make their subjects quite as valuable for the training of students as Latin and Greek now are.

But we are in a period of educational activity when the demand for the immediate attainment of this end is so strong that the methods adopted by our educators must be much more effective than were the slow methods through which the classics developed. We are driven, therefore, like all of our contemporaries in practical life to the highest possible degree of scientific study for the purposes of economy. We shall never be able to master the problem of teaching modern languages in the time which is allotted to us for working out that problem unless we make a scientific examination of the problem.

A second type of problem which will support my contention that scientific study should be made of high-school problems can be chosen from the sphere of administration. What effect is produced in schools by our various devices of marking and reporting the marks of children? We are under a general necessity of keeping some kind of record of the mental attainments of students. The simplest way of keeping such a record is to get a mathematical expression of the degree of perfection attained by these students. It is a well-known fact in any high-school faculty that the individual differences of the various teachers operate to modify the marking system to such a degree that it is often difficult to compare the reports of different teachers upon the same children. Suppose that we had a thorough-going examination of the whole marking system from the point of view of its relation to the teachers and the students. The problem could be attacked very productively by averaging all the marks of the children in a given school and then comparing the marks of individual teachers with the average marks. Of course there would be a number of elements that would have to come out in the course of the investigation. In the first place, the personality of the teacher might be such as to inspire the students to greater activity than the average activity of the school. Again there would be certain students who would show a high degree of perfection in one kind of subject and a relatively low mark in other subjects. There would appear, however, in spite of these complications, a very wide divergence of practice on the part of different teachers.

The one teacher would mark above his colleagues, the other teacher would mark below his colleagues. If for no other reason, such a study as this should be made in order to make the school intelligent about the significance of its own records. We should also be able to determine the crucial points in any marking system. I think enough examination has been made of this subject to make it clear that the mark of the highest students, the mark of the lowest students, and the average mark of all students are three crucial points in defining the system adopted in any school. If a new teacher could be informed in every school as to the practices in that school with regard to these three crucial points, he could take up very much more intelligently his rating of the students in that school than he can now when he is told that 100 per cent. means perfection, seventy per cent. means passing, and the other grades have some vague reference to school honors and to the conduct of his own courses and the discipline that shall be administered by the faculty to the students.

The second phase of the problem which I suggested a moment ago is the relation of these marks to the work of the students. I think every teacher has some personal attitude toward the marking system. One very frequently hears his colleagues say that it is not a good thing to report to students their standing. Another member of the same corps is heartily in favor of reporting to the students their standings. Sometimes the two practices of reporting and not reporting are practiced side by side in the same school. Sometimes faculty action prevents the one member of the faculty from carrying out his natural tendency to report the marks and makes it a general practice of the school that no marks shall be given out. On the other hand, there are schools where the practice of reporting regularly to the parents is regarded as a great stimulus toward activity on the part of the pupils. It would be very simple to get definite information on the subject of the effect of marks upon the students by making a comparison between successive terms or successive years during which the one practice or the other was adopted and carried out without deviation. Suppose a high

school for a given year should keep an elaborate internal record, but utterly refuse to let the students have any knowledge of this record, and the year following the practice were entirely reversed and the effects examined, we should then be able to substitute for vague general opinions on the part of the teachers with regard to the effect of reporting marks some definite scientific information on that subject. We should have the kind of solution for our problem that is being sought for every practical problem in this day and generation. In departments of agriculture for example, it is no longer a matter of guess whether a certain type of cultivation of a given plant is advantageous or disadvantageous. It is so important that the most economical methods of soil cultivation be adopted that the results of the one method or the other are carefully tabulated and the most productive methods widely adopted. Why should we in our cultivation of an elaborate system of marks fail to apply the same sort of scientific test that is now applied in agriculture?

Another general question which is both administrative and instructorial in its character is the question of the number of hours per week which can advantageously be devoted to a given subject. With the crowding of the modern curriculum, the tendency has developed to give one or two lessons in each of the various subjects which it has seemed advisable to introduce into the school programme. Teachers have, however, protested that it is quite impossible for them to do their work with any degree of efficiency when they meet a class only once or twice a week. The question has frequently been discussed as if it were a general question which can be answered for all subjects in the same terms. On the other hand, the suggestion has frequently been made that the solution of this question is different for different subjects. Thus, it has been stated that for modern languages it is very desirable that classes should meet every day in the week, while for some subjects such as English or history it may be entirely feasible to have one or two class meetings a week and allow the students to do independent work in the interval in order to encourage them to cultivate the type

of concentration which would come from taking up their work without constant supervision. Here, then, are at least two contrasted attitudes—one which emphasizes the importance of continuity of class work and one which would emphasize the growth of independence in student work. How shall we ever solve the problem that is here presented? Again the teacher is a part of the problem. There are undoubtedly some teachers who can teach the subject better when they have the class constantly under their direction. There are other teachers who can stimulate the pupils to do independent work. Under our present scheme these two types of teachers are not sharply differentiated so as to make it possible for the organizer of a high school to distinguish between those teachers who are good recitation masters, who can do the work well in mere routine, and those who do their work in an entirely different way. Suppose that we should introduce in a given high school some election on the part of different teachers of the methods by which they accomplish with their classes a definite result. Suppose we set for two teachers the problem of accomplishing a certain end in history and then allow them to differentiate their methods even to the point of changing the number of hours during which the course should be given. Let the two groups of students thus brought up under different types of class organization be compared with reference to their attainments. Again I wish to say that a general examination might be used for this purpose if its results are properly studied. We might find that one teacher trained the memory of the children well while the other trained the power of independent inference in such a degree as to more than compensate for the lack of special memory drill. I have thus far spoken of history; I am not at all sure that it would appear even in modern languages that the best work is done by drilling the students every day in the week. Whether or not such continuity in class work is desirable certainly has never been determined in any such way as to carry universal conviction. I can think of no more instructive experiment to be worked out in high-school education than the experiment of determining the importance of work in the class and

independent outside work. We have been given certain interesting scientific facts which suggest the possibility that it would be better to allow lapses in class training. Professor James quotes with approval the statement of Exner that we learn to swim in winter and skate in summer. Whether the child learns German on the playground and how to play football in the German class may be solved some day. At all events if it could be shown how the type of training gained in recitation is related to that gained in silent study, we should be in a position to discuss much more intelligently some of the different values in training.

Thus far I have dealt with specific problems. I should not be true to my training as a psychologist if I did not refer to the more general problem of formal discipline and describe it as the great problem of high-school education. We are in the habit of measuring the success of our work by the amount of a given subject which can be assimilated by the students. We have been in the habit of saying that this or that kind of knowledge is valuable, and we have not really meant this or that kind of knowledge, but this or that subject-matter. I believe it is time for us to take an entirely different view of what is meant by the term *kinds of knowledge*. The ability to reason independently, the ability to retain the essentials and neglect the nonessentials, the ability to carry on certain types of inquiry in any subject-matter, all these forms of ability are more important than the ability to reproduce a body of particular information. The meaning of this last contention may be made somewhat clearer by saying that what we need in our examination of the high-school course of study is a complete restatement of the values of these courses in terms of the mental habits which are cultivated as distinguished from the information which is gained. We are just at the beginning of a period of study of the effects of education. We should begin this study by getting some comprehensive notion of the different faculties or different types of mental life which can be regarded as advantageous. Instead of making the general sweeping statements about the value of certain subjects of instruction we ought to

ask how the power to reason can be cultivated, how observation can be improved and widened in scope. In short, we ought to have some classification of our achievements in the educational world which would make it possible for us to talk intelligently about the traits of mental character which have been cultivated. The moment I put the matter in that way I am sure you will all recognize my position on the much-discussed problem of formal discipline to which I am referring. I have put my position somewhat dogmatically, not because I love dogma, but because this is not the place to undertake a full discussion of the matter. I am perfectly clear that one of the most stimulating discussions of our modern education has grown out of the critical remarks of those who have been asserting of late that there is no such thing as formal discipline. It is very interesting to note that the assertions which have been made regarding the non-existence of formal discipline have been based very largely on studies of simple elementary-school subjects. The examination of neatness in arithmetic work has been one of the matters of discussion. The question of whether arithmetic and geography are related or unrelated has been another one of the subjects of discussion. If anything is clear with regard to the problem it is that the final answer to this question will relate not so much to the work of the elementary school as to the work of the high school. There is no doubt at all that the child in the elementary school is very dependent upon the new information which he acquires in any given subject. Furthermore his interests are relatively unsettled and his powers of concentration weak. The result is that the conflicts which exist between the various subjects of instruction in the elementary school are so great that the information which can be gathered with reference to that period of education is of relatively small importance in solving for us the broader general problem of education which presents itself to the high-school teacher. Formal discipline is and always will be a matter of very much greater concern to the high-school teacher than to the teacher in the elementary schools. If this statement is true it follows immediately that we must solve this problem

through an examination of high-school subjects and their interrelation. Is it true that the work of the Latinist in the high school gives a general form of training which has the value that he places upon it? You and I may have individual opinions about this subject but until these have been justified by a critical, scientific examination, our individual opinions will simply contribute to the general disagreement which now exists. If one asks what are the methods by which this problem can be solved, I think the first answer which must be given is that the problem can never be solved except by a re-examination of the subjects of the high school with reference to the general faculties which they are supposed to train, rather than with reference to the subject-matter itself. When, for example, the teacher of Latin asserts, as he does very vigorously, that his course in Latin trains the child's ability to observe minutely and accurately, we must devise some method of attacking his statement and either supporting him by definite tests or overthrowing him by the same type of definite information. I believe personally that evidence is now at hand in sufficient abundance to justify a conclusion, hence my dogmatic position on the matter a moment ago. If there is anyone who does not accept that conclusion, then in drawing him out I have served my immediate purpose of showing that there are problems to be solved by scientific study of high-school problems.

One final topic which I should like to suggest for scientific investigation is the topic of distribution of subjects in the high school and in the upper grades of the elementary school. Our teaching of physics and chemistry and zoölogy and botany in the high school is in a decidedly experimental stage. It is quite possible for us to find those who advocate a treatment of the physical sciences as suitable material for the early years of the high-school training, while others are disposed to regard the biological sciences as more appropriate material. There are some teachers who advocate the presentation of the sciences in their differentiated form, while others advocate for the high school itself a general introductory course in which physics and biology are not sharply differentiated from each other. Whether

we shall rearrange the elementary course of nature-study so as to prepare for a sharp differentiation in high-school courses or whether we shall carry forward the relatively undifferentiated work into the early years of the secondary course are questions which must be answered through an examination of the ability of the students to compass the various types of matter under discussion. Here as in the case of the modern languages we must take into account the differences in teachers, as well as in pupils. Here as in those earlier subjects discussed we cannot wait for the long process of gradual evolution to perfect methods. We must reach these methods through some forced study of the problem in hand. I know of no better problem with which to bring the elementary and the high school into close contact, than this problem of science teaching, and I know of no finer problem than this with which to illustrate the importance of keeping careful records of results. Let the course be prepared and then record all the results. Modify the course and again record results. Try the experiment with older grades and younger and keep a record. The trouble with us now is that we are trying the variations in the course but are keeping no records. We lose more pedagogical experience every year than would be required, if it were put in permanent form, to make the most valuable book on education ever written. Some day teachers will regard it as a part of their duty to keep records of their results.

These then are some concrete problems which I believe it is proper to urge on every high-school teacher. Some of these problems as I have suggested, and as you know, have been touched upon by isolated students of the science of education. My special purpose here is to urge upon you the possibility of taking up some such problem in connection with your regular work.

Indeed, the whole argument which I have presented is intended to show that the breach between ordinary work and scientific study is very narrow. The idea has been abroad that science and pedagogical experience are opposed to each other, that the scientific man is of necessity impractical and the practi-

cal man is of necessity unscientific. We need to revise this idea. The practical man has much experience which is the indispensable beginning of science. All that is needed in order to make this experience genuine science is some refinement in method of formulating the experience and in recording its results. With regard to the abstractness of much of our science work, that has unquestionably been due to the fact that the science of education has for the most part been in the hands of people who were not in close contact with the actual problems of the classroom. I come back therefore to my original plea for a widespread interest on the part of all high-school teachers in the refinement and definite formulation of their everyday experiences. If we could have a corps of high-school teachers who thought of their problem not merely as a problem of routine instruction of children but as a problem of the rearrangement and reorganization of education, I think we should very soon have in this country a group of specialists who would find this problem of the science of education quite as interesting as the problem undertaken by the specialists in zoölogy or botany or any other subject. It is a curious fact that in academical circles and high-school circles it is eminently respectable to be a student of the lowest forms of animal life and a very doubtful distinction to be a student of education. The specialist who takes up the examination of one of these lower animal forms is regarded as scientific in a high degree, but until very recently there has been little hospitality for the work of the specialist who attempted to study education. It has been thought and often said that education would take care of itself.

Some have asserted that the student of Latin or mathematics or modern language could specialize in these subjects with great propriety, but he could not at the same time have any energy or leisure for the study of education. The result has been that high-school teachers of ability have desired as soon as possible to escape from the hard routine work of teaching children for the purpose of taking up graduate work or for the purpose of accepting minor positions in the university where academic specialization in their various lines is possible. I re-

gard it as important, therefore, that we make perfectly clear the possibilities of treating the Latin in the high school and modern languages in the high school and mathematics and science in the high school in such a way as to make a specialty of the educational problems connected with these sciences and literary subjects. To become a specialist in the organization of these various subjects ought to be the aim of everyone who makes high-school work his special field and I repeat, if we could get the significance of this problem clearly before high-school teachers in this country I think we should contribute to the creation of a profession of high-school teaching. I think we should improve our public-school system if we allowed high-school teachers a certain amount of leisure from their instructional duties in order that they might establish themselves as specialists along these scientific lines which we have been discussing. I think we should have better high schools, classes more economically administered, and young people better trained to go on with higher studies or take up the duties of practical life.

THE PLACE OF MANUAL ARTS IN THE SECONDARY SCHOOLS[1]

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The place of the manual arts in secondary schools is the subject for discussion in many educational meetings at present. It presents two phases, either of which is sufficiently important for a single discussion, but in a gathering so significant as this it seems to me that it would be better to touch briefly upon both phases, rather than to omit either. The two phases are these: the industrial arts, which relate to the shaping of material into forms that are to be of use, and the fine arts, which relate to the producing of things of beauty, either to be of use or created for the sake of aesthetic contemplation.

I wish to speak first of the industrial arts as a cultural subject. I think no one can watch the progress of this work in the schools without feeling that the skill and knowledge and foresight and persistence of effort and command of powers necessary to shape raw material into predetermined forms cannot but be valuable for every person, no matter what his future occupation is to be. The industrial arts offer a sort of training that cannot be omitted from general education without a loss for which there is no adequate compensation.

It is not unlikely that development of ability to bring order out of materials previously unrelated, to shape them so that they embody a plan, is the best training for ability to bring order out of chaos of ideas and to think clearly. The increase of mental power that comes from shaping material to express one's ideas has been sometimes overlooked, and we need to consider it carefully in formulating a course for high schools. I suggest here-

[1] An address delivered at the Twenty-second Educational Conference of the Academies and High Schools in Relations with the University of Chicago, November 19, 1909.

with some of the results that are observable in actual practice where this sort of work with material is present. If a pupil is to express an idea of his own in construction he has to follow some such steps as these: First, he must have a clear notion of the thing he wants to make. For example, if he wishes to build a birdhouse, he has to make his idea definite and concrete; he finds that instead of a general idea of a birdhouse he must have a definite image. This involves a sort of thinking that probably would not come if he did not intend to materialize that idea. After he has made his thought definite, he has to draw plans to exact measurements, so that he knows the amount of material he is going to use and how it is to be cut. Lastly he must have the technical skill to produce with the material at his command a birdhouse that is like the one that he planned. To produce a thing as at first planned is a very different thing from starting to produce a certain thing and having it turn out to be something else, and the sort of training that leads a person to be able to realize his ideas, to produce a thing which shall correspond to the plan in his mind, is an eminently cultural sort of training. Such training brings a vivid realization of the gap that exists between one's first vague thought and the actual result in three dimensions. That is observable in boys who come to high schools and try for the first time to accomplish projects in construction. The boy starts in with his work, and after one or two lessons realizes, with surprise, how much time it takes to shape a single piece of wood to fit into a certain place. He appreciates the effort that lies before him, and either begs off or is roused into determination to complete the work as he should. This realization of the amount of effort necessary to carry a thing to completion is an important part of an adequate education. If children are trained in handling material from the earlier grades they come to that realization step by step, but if they begin in the secondary school it comes to them as a surprise. If they do not have it in the secondary school they are likely to go out with a confidence which is not grounded in experience. One of the important features which justify the place of the constructive arts in the public school is this training to appreciate the gap between the

idea of the thing one would like and the thing realized in concrete form. That brings also a sane soberness in the face of problems.

A great many of the get-rich-quick schemes would not be undertaken if young people were trained to the accomplishment step by step of the conquest of material. The confidence begotten of experience, that one has the skill to carry out a project, the consciousness that persistent effort well planned will secure results should be gained from manual arts in secondary schools. The young man who has been trained in the high school in the constructive arts should go out into life with the confidence that persistent effort well planned will shape material. Intellectual achievement, alone, can never take the place of that. A person approaching a brook in a meadow may calculate whether he can jump the brook or not by reasoning from statistics how far a man ought to be able to jump, but the confidence that this is within the power of the ordinary man is not the same thing as the confidence in his muscles arising from the fact that he has jumped that brook before. When intellectual confidence is increased also by a sense in the muscles that one can do that thing because he has done it, we have the completed round of education. One comes to appreciate also the scholarship of skill. Some people have the idea that if one trains his brain, skill of hand is something he can get easily at any time; but skill of hand has a part in changing the structure of the brain.

There is a tonic effect in dealing with the unchanging laws of things. The product itself faces the worker in three dimensions as right or wrong after it is done, and that sense of being confronted by the results of the work of one's hands, the feeling that if one does certain things and follows certain laws the results are sure, is an important part of education. One may slip a little in certain problems, such as literature, or Latin, and no harm results, but if in laying a track there is a variance of a few inches, the mistake is fatal. The laws are inevitable. There is an invigorating effect from being brought face to face with these laws of material and being compelled to reckon with them. Anything that helps a person out of ineffectiveness in the presence of the problems of life is cultural.

The manual arts in the secondary schools have not only this cultural value, the value for all, whatever their occupation is to be, but there are emergencies now pressing, that demand industrial education. Manual training is for the purpose of giving that acquaintance with material and its laws which everyone needs; industrial training deals with the making of objects which must meet market standards, and in the producing of which one becomes acquainted with industrial processes and is led to see the interdependence of workers in any system. Many question whether this should come into our school system. A number of experiments are being tried. Technical high schools are being established where industrial education is made the chief end. Half-time courses are being carried on in many places by means of arrangements with local industries. The boys are allowed to work half-time in the schools on the regular academic subjects and half-time in the shops earning money. If they were in the shops all the time they would be so held in the clutch of the industrial system, that they would not be able to see it as a whole. But this relaxation for half the time, and the continued dealing with academic subjects, helps them to reflect a little upon and understand somewhat these industrial methods. In spite of the questions that are raised about bringing commercial ideas into schools, experiments have proved that even in the elementary schools it is valuable to do something toward awakening industrial interests. Four-fifths of the children of the country leave the elementary schools at the end of the seventh or the eighth grade and must of necessity go into unskilled industries that give little pleasure in the work. They pass from one thing to another with no vocational outlook, and by the time they would have gained maturity in the high school most of them have acquired a dislike for work and do not care to prepare themselves for any skilled industry.

Some training which gives an understanding of industrial conditions is valuable. There is an educational value in making things in quantity for use in schools, that deserves more attention than it has received. One interesting result of experiments along this line is the proof that the motive of individual owner-

ship is not necessary to produce interest. Classes which have made things to be used by the school system, such as boxes for crayons, and portfolios for use in the high school, and which have bound school books, and have done some of the school printing have seemed to find fully as much satisfaction in seeing the school-supply team come and carry away the products for use by the city as in carrying them home for personal ownership. It is a question in a republic whether there should not be some training which has its place in the system that is supporting the child, whereby the child may be led step by step to realize that he has some return to make. That is a point to consider when this matter of industrial education is under discussion. The making of such things in the school might change the careless attitude of mind toward public property. The demands for some sort of education of this kind are very insistent, and moreover, whether right or wrong, the public responds to any introduction into education of things that deal with productive processes. Where technical high schools have been established the result has almost always been a great increase in high-school enrolment. This means that many pupils are thus kept in school who otherwise would have gone into unskilled occupations. Moreover, this is also almost universally true, that wherever industrial work is introduced, not only does the other work not suffer, but it is better performed. A boy in an industrial class, when asked how he kept up in his academic studies replied: "I have to get my lessons now or I cannot come in here for this work."

Equally valuable is the manual work for girls, in training them to the intelligent management of the home, which is a business problem, and in dealing with such matters as the making of clothes, millinery, etc.

The second phase in my topic, namely, the place of the fine arts in the secondary schools, has been recognized for a long time and a place on school programmes has been given to drawing and design, but it has too often been a subject to which the authorities gave slight attention. It is very suggestive to compare the honor which has been given to the fine arts, the place they hold in history, and the sacrifices people are willing to make to excel in

them, with the slight recognition which they often receive from educational authorities as educational subjects. The artistic faculties are sometimes not supposed to be practical working faculties. Any attitude toward the fine arts which regards them merely as luxuries means a distinct loss. The result is that while human beings are so built that they demand beauty in their surroundings and in the things with which they have to deal, they are left without training which leads them to discriminate between mere prettiness and that which is beautiful. There can be no adequate appreciation of beauty without some definite training in that line. Mere prettiness depends upon sensational appeal and personal whim. The person who likes only prettiness has no abiding delight in beauty. The enjoyment of beauty depends upon elements that are permanent. One who appreciates beauty has a constant source of pleasure.

To be able to come to such an appreciation of beauty is a necessity for every person if he is to get the most out of the life about him.

I wish to suggest two or three values of the fine arts in education, particularly in the secondary schools. One is their influence on industries. I think every high-school pupil ought to have some knowledge of the beauty that has been attained along the lines of the different crafts in the past and present. The things that the mediaeval workmen were able to produce were often wonderfully beautiful and full of suggestion for the craftsman of today. Knowledge of these is now generally confined to the collector. If such knowledge becomes universal, we shall demand beautiful things, because we shall be so trained as to dislike the ugly and commonplace. A beautiful thing is a delight every time one sees it. This is one means of enabling a man to enjoy his life better. A public demand for beautiful things for common use would mean the transforming of many unskilled into skilled occupations and the raising of the level of civilization. A nation which exports its raw materials to some more skilled nation to be finished up into artistic products is suffering a great loss. The nation that so trains its people as to make them able to

carry products to the highest stage of perfection is solving part of its social and industrial problem.

There is also opportunity for the appreciation of the fine arts in the high school from a historic point of view. Such an appreciation gives the most intimate knowledge of the character of the people who made them. Pupils who study the three orders of architecture cannot come to an appreciation of them without some perception of the character of the people who built them—the simplicity of the Doric, the refinement of the Ionic, the luxury of the Corinthian, but still a luxury held in restraint. A person who looks at temples is looking at an interpretation of the religion represented in such a manner that he is compelled to feel it. The fine arts may play somewhat the same part in cultural education as the classics, when high-school teachers have an adequate acquaintance with the subject. One sometimes wonders if these concrete objects which the people themselves touched do not exert a greater influence over high-school pupils than the classics, because, however much culture may come to the adult from the inspiration of Homer's style, it is nevertheless true that the high-school boy finds the majestic movement of that style somewhat impeded by the necessity of constant reference to the lexicon; he cannot see the thing as a whole, but only in parts, and those parts to people of twentieth-century ideals are not always as much of an inspiration as they might be. The high-school boy is not apt to make the allowance for differences of civilization.

I wish to speak lastly of the purely aesthetic value of the fine arts in secondary schools. The person who appreciates a painting of a fine landscape finds that he is looking at something different from a mere photograph, for a landscape well painted is more than a reproduction of an actual scene. When a painting of sunset is a work of fine art it is because the painter watched it; feeling the change from the full sun to the sunset, the rich sequence of the colors, and the glory of the light. He has studied and drawn and painted it until by and by he is able to express his mood in the presence of it. The great painting is the culmination of many hours of observation and of many sketches. The artist has taken a hint that nature gave him and has carried that

hint to perfection. Nature is always giving hints in the scientific world and in the aesthetic world. Life gives hints, which the writer never takes down stenographically but which he works over until within his book he makes a completed whole that comes out right. That is what the artist does. The person who looks at the painting appreciatively finds a certain phase of nature clearly set forth and carried to perfection. That sort of appreciation and its accompanying delight is a part of education one ought to have. When one stands with appreciation in the presence of a great work of art, there is a reinforcement of the spiritual nature, for art has taken one problem after another, of literature, of music, of form and color, and carried it to a solution and compelled it to reveal its significance. The aesthetic sense does not reason that out, but feels it.

This sort of appreciation is not gained by analysis. It is developed by bringing people into the presence of fine art, not to work upon it, but to let it work upon them. One very unfortunate fact in our school education has been that we have felt we must pursue the scientific method for everything. I think our attitude is changing. In some schools, in addition to the regular school study of music the children are brought together occasionally to listen to the best musician the city can secure.

Our study of the fine arts must include a series of choices between things better and worse, until one comes by contemplating the better and worse to an unerring discrimination of that which is good. And an exceedingly interesting and encouraging fact is that the majority of people, when brought before a series of things, vases, pottery, works of art, and led to discuss the objects and exchange views, even if they are untrained views, will come to a very good appreciation of fine things. Then it remains for the instructor to inject suggestion and stimulus leading them to what seems to be a trustworthy appreciation. Experiments have been made by taking children through galleries and expecting them to come to an appreciation of art by panoramic views, but the results are not encouraging. Children may be led step by step to the appreciation of a picture within the range of their apprehension by awakening in them a wide interest

in the subject. Suppose, for example, the picture is an autumn landscape. If the children collect pictures of autumn and decide which carries the spirit of autumn most truly, if they compare them with descriptions of autumn in literature, and report their own observations of autumn, the chances are that they will develop a sincere appreciation of the picture. A number of experiments are going on, which promise that by and by we shall be able to approach the subject from the aesthetic side; for to have an aesthetic appreciation is to appreciate by feeling. Many pupils in the high schools and elsewhere are led to think that reason is able to conquer all things and that we gain all of our power by activity, forgetting that a great deal of power comes by letting ourselves be worked upon by outside forces as well as by exerting ourselves. Children now go out of high schools knowing how the Roman forum and the Parthenon looked, but I doubt whether any American high-school child ought to go out without knowing what are the best modern solutions in the way of beauty, in homes and business blocks, town and city halls, and other civic structures in which we might take pride, what are the finest modern products in the way of public libraries, bridges, parks, fountains, statuary, etc. In some countries that is made a matter of great attention so that if a stream runs through the town the best talent is employed to try to make it as beautiful as possible. Any addition to the beauty of a town, especially of a rural town, is the greatest aid in bringing the people back to that place and giving them pleasure in their memory of it. The pupils should be trained to know the best designs for street signs and street furniture—such as lights and electrical fixtures, elevated structures, etc.

When our high schools have given acquaintance with industrial problems and have so treated the fine arts that the pupils see their relation to industry, their historical value in interpreting the past and their aesthetic value in giving us joy in the present, they will have gone a long way in solving the problem of the place which the fine and industrial arts should take in the secondary schools.

CO-OPERATION OF SCHOOL AND SHOP IN PROMOTING INDUSTRIAL EFFICIENCY

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The National Society for the Promotion of Industrial Education was organized at Cooper Union in November, 1906. It has held three annual conventions and has established branches in different states, and the movement has already made itself felt in more states than one in leading to legislation providing for industrial training in the public schools.

As a result of increased interest in industrial education various organizations have appointed committees to deal with the matter. In April, 1908, the Chicago branch of the National Metal Trades Association appointed a committee on industrial education. As the director of the Lewis Institute I was invited to meet with the committee and consider the question of what might be done to provide competent workmen for the shops in Chicago.

We agreed that we should profit by the experience of Germany and see to it that working boys have an opportunity of continuing their education through systematic instruction given in the day time. But the American shop is so organized and administered that the German custom of setting apart certain afternoons for the instruction of apprentices seemed to the employers impracticable. We were aware of the fact that certain large corporations, such as the Baldwin Locomotive Works and the New York Central Shops, provide for the education of apprentices by establishing schools in connection with the works and employing a superintendent who sees to it that the apprentices are properly taught. But most shops are not large enough to put a plan of this kind into successful operation. Then too there are objections to corporation schools. They are apt to be thought of as operated primarily in the interest of the corporation, rather

than for the welfare of the apprentices, where there is a possibility of conflict of interest. It therefore seems a reasonable specialization for the shop to train in shop methods and discipline, and the school to supply such supplementary education as it is best qualified to give.

We were all of us more or less familiar with what Professor Schneider is doing at the University of Cincinnati. His scheme, however, has to do, not with the education of shop apprentices, but with young engineers. But there seemed to be no good reason why a similar plan might not succeed with younger and less advanced shop apprentices, and we agreed to try it out. The members of the committee were confident that employers could be found who would take boys on half-time, alternating from week to week as in Cincinnati, if the Lewis Institute would undertake to work out a curriculum for the boys that would be suited to their needs.

Having agreed to this plan of co-operation, the first question to be considered was the length of the course. It seemed to us that, in starting, a two-years' course, extending through the summers, equivalent to a continuous training of one year, would be as much as we should undertake; that in general these boys, if they were serving a four-years' apprenticeship, could be in school on half-time for two years. The employers thought they could count the two years as full years of apprenticeship. It seemed wise not to make the course too long because of chances that are liable to interrupt the work, such as removal of parents, shutting down of shops, and discontinuance of the co-operation of the shop and the school.

In considering the question of the age of the boys, we felt that with the law as it is in Illinois we should take no one under sixteen. Some of the employers were anxious that we go over twenty, while we thought that eighteen should be the limit. We compromised on the limits of sixteen and twenty.

The compensation was fixed at five dollars a week for the week the boys work and the tuition fee of fifty dollars a year, amounting in all to about seven dollars a week; so that the boys got their schooling and received at the same time ten dollars

a month. While the employers anticipate that the boys will become for them valuable workmen who can be given more responsible positions as a result of their training than would otherwise be possible, they recognize the fact that at the expiration of the two years some of the apprentices may prefer to give up the shop work and go on with their school work, which they will be at liberty to do.

In putting the plan into operation, we felt that it would be best to confine ourselves to boys who were already in the shops, who had proved their ability to do shop work, and who would come to the school on the recommendation of the employers. After a thorough canvass, we found that the firms that were interested in the co-operative course could furnish but ten boys from their own apprentices who felt that they could afford to take the smaller income which being in school on half-time involved. Places, however, could be found in these shops for forty boys, or twenty units, provided that business conditions so improved as to warrant the putting on of more help. Conditions did not improve as expected, and in September it was decided to postpone the date of starting the work from October 1, 1908, to January 4, 1909, and in the meantime to put as many boys in the shops as places could be provided for, that they might be thoroughly tried out before starting the work at school. On December 27 we had twenty-six boys working in the shops. The industrial situation was still unsatisfactory, and employers who were interested in the work were reluctant to take on more boys. On January 4 we started with twenty-eight boys enrolled, fourteen units. On January 13 we had places for ten more boys. At this time a "want ad." was placed in the *Daily News* for one issue, stating that we had places for ten boys. On the morning of January 14 sixty boys came to the Institute in answer to this advertisement. Of these about twenty were selected and requested to appear the next day in classes. During the next two or three days ten of these were sent out to the shops for a trial, eight of them being temporarily placed, increasing our enrolment to thirty-six. Throughout the remainder of the Winter Quarter individual applications were received, and in a number of cases the boys

were given a trial. In all, about twenty boys attended the Institute for a week or more who were never sent to the shops. A number of these would have made good boys for the course, but places could not be found for them at the time.

By the close of the Spring Quarter the class had been reduced to twenty-two. An advertisement was placed at this time in the *Tribune,* and about twenty boys appeared the next morning at the Institute. Only boys who were somewhat advanced in their school work could be selected at this time, and only five were secured, increasing our enrolment to twenty-seven. By the close of the first year's work the number had been reduced to twenty-four. All of these have expressed themselves as anxious to take the second year's work, and after a personal interview with each one we feel quite certain that twenty of the twenty-four fully intend to complete their time as apprentices in the shop after the expiration of the co-operative course.

Of the twenty-four boys who completed the first year's work eleven were recommended to us by the shops and thirteen were recommended to the shops by the Institute. Of the twenty-seven who have dropped out of the course, three were recommended by the shops and twenty-four were secured by the Institute, for the most part through advertisements. This includes all who were sent out for a trial, most of whom were not regularly enrolled. It appears, therefore, that boys who are already apprentices are more likely to succeed than the boys who are otherwise obtained.

Of the twenty-seven who have dropped out, eight were dissatisfied with shop conditions, eight did not show a proper interest in the work, three were unable to make a satisfactory record at school, one could not afford to continue the course, one left because of the removal of his parents, and the remainder for reasons that are not known.

Of the twenty-four boys now in the course, two are nineteen years old, ten are eighteen, nine are seventeen, and three are sixteen. Two had completed the sixth grade, two the seventh grade, nine the eighth grade, six one year of high school, three two years of high school, one three years of high school, and one

had completed a four-year high-school course. A number of the boys had been out of school for some time, and some of them had attended evening school. The boys worked well together. Those who had been at work had acquired a sort of knowledge that made it possible for them to hold their own with their companions who were more advanced in school. Then too the work was of quite a different character from what is usually given in high schools. The mathematics, for instance, was a combination of arithmetic, algebra, geometry, and trigonometry.

The curriculum as at present arranged for the first half-year is as follows: The boys begin the day at 8:30 with laboratory work in physics, a subject which they are sure to be interested in when presented, as it is in the Institute, with emphasis on the applications to the mechanic arts. At 9:30 they meet with our large high-school class in physics for the demonstration lecture. At 10:30 they go to the teacher of mathematics, who keeps in touch with what the boys are doing in physics and in the shops, and gives them the instruction they need to help them in their other work. At 11:30 they go to the teacher of English, who requires them to write themes on the work of the shops and to discuss topics of current interest to young workers. In the afternoon the boys spend two hours in the drafting-room and two hours in the shops of the Institute, that they may understand the relation of the work which they are doing outside of the Institute to other shop processes.

The work of the Summer Quarter for first-year boys was confined to a single subject, chemistry, which was presented by means of demonstration lectures, laboratory experiments, and textbook work for from six to eight hours a day.

The curriculum for the Autumn Quarter was similar to that of the Winter and Spring. The curriculum as planned for second-year boys is along the same general lines, except that in the Summer Quarter the forenoons will be devoted to electricity, engineering principles, and practical mathematics, and the afternoons to laboratory work in testing machinery and strength of materials.

After a year's trial all are agreed that we are on the right

track. The boys want to continue. Most of those who have completed the year's work have developed into promising young workmen. The school has counteracted certain shop influences that often work to the disadvantage of apprentices, and the shops, on the other hand, have given the boys a training that makes the school work more real and effective than it otherwise would be. We are agreed that the boys are more manly and better equipped than they would be likely to be if they had spent the entire time either in the shop or in the school.

The coming together in occasional conferences of the employers and the instructors of the boys has shed much light on the needs of the shops and the aims of the school. This is a phase of the co-operation of school and shop the importance of which cannot be overestimated. On the evening of December 15 the boys and their employers and instructors met together at a dinner at the Institute. The boys organized a society to be made up of all in the co-operative course. They were addressed by a number of the employers, after which the employers and instructors held an important conference. Provision was made for a new co-operative class of forty to begin work in the Institute at the opening of the Winter Quarter. As a result of the meeting a change in the method of paying the boys was decided upon, and is as follows:

On each alternate week the shop apprentices are sent to the Institute for five school days of eight hours each and report to the shop on Saturday. In computing wages, the school week is counted equivalent to the regular shop week. First-year boys are paid weekly at the rate of seven cents an hour. Second-year boys may be paid weekly at the rate of nine cents an hour. Boys who are already employed as apprentices may receive weekly wages at a rate equivalent to one-half the hourly rate they are earning at the time of entering the course, plus two cents an hour, this two cents an hour being sufficient to cover the cost of tuition. The Institute reports to the employer weekly the time spent in school, all time lost being deducted from the boy's wages at the regular rate per hour.

It was contemplated that the boys should pay tuition amount-

ing to fifty dollars a year out of their earnings, but Mr. La Verne W. Noyes, who has had six of the boys in the shops of the Aermotor Company, has generously offered to pay the tuition of all boys in the co-operative course who do satisfactory work in both the shop and the school. Mr. Noyes has thus shown his appreciation of what has been done, and has made it possible for boys to become competent workmen who might otherwise feel obliged to do work which qualifies them for nothing in particular and offers no opportunity for advancement.

Many have worked together to make successful this experiment in the co-operation of school and shop in promoting industrial efficiency. Credit is due especially to Mr. Paul Blatchford, secretary of the Chicago branch of the National Metal Trades Association, who has interested the manufacturers and induced them to co-operate with the Institute in the education of their apprentices. Mr. Charles E. Hoyt, instructor in foundry work in the Institute and secretary of the National Foundry Foremen's Association, has made frequent visits to the shops, has found places for the boys, and has kept in touch with them and their employers.

REPORT OF THE COMMISSION ON COLLEGE-ENTRANCE REQUIREMENTS IN LATIN

JOHN C. KIRTLAND
Chairman of the Commission, Phillips Exeter Academy

At its annual meeting in 1908 the American Philological Association, acting upon petitions from the Classical Association of New England, the Classical Association of the Atlantic States, and the Classical Association of the Middle West and South, passed this vote:

Resolved, That there be constituted under the authority of this Association a commission of fifteen members on college-entrance requirements in Latin, to formulate definitions of such requirements and to further the adoption of these definitions by our colleges and universities, in the interest of that uniformity toward the attainment of which this Association in the vote of December 28, 1907, promised to "lend all aid in its power."

Resolved, That the members of this Association who are present as representatives of the Classical Associations of New England, the Atlantic States, and the Middle West and South be constituted a committee to select the commission named above; further, that this commission shall consist of four members each, two representing colleges and two representing secondary schools, from the Classical Associations of New England and the Atlantic States, and seven members from the Classical Association of the Middle West and South, four representing colleges and three representing secondary schools, and shall include the committee of selection.

The committee charged with the selection of the Commission, W. G. Hale, J. C. Kirtland, and Gonzalez Lodge, asked the Latin departments of certain universities to designate representatives and left to the three classical associations the choice of the members to represent secondary schools. The committee deemed it important that four universities which admit students only on examination, two within the territory of the Classical Association of New England and two within the territory of the Classical Association of the Atlantic States, should be represented on the commission, and thus made up the complement

of college representatives allowed to these associations by the vote establishing the commission; in the case of the Classical Association of the Middle West and South, institutions in different parts of its territory were selected. As finally constituted, the commission consists of the following members:

Walter Dennison, University of Michigan (*Secretary*).
W. G. Hale, University of Chicago.
M. M. Hart, William McKinley High School, St. Louis.
J. W. D. Ingersoll, Yale University.
J. C. Kirtland, Phillips Exeter Academy (*Chairman*).
Gonzalez Lodge, Teachers College, Columbia University.
D. W. Lothman, East High School, Cleveland.
B. W. Mitchell, Central High School, Philadelphia.
C. H. Moore, Harvard University.
F. P. Moulton, Hartford High School.
J. J. Schlicher, State Normal School, Terre Haute.
R. B. Steele, Vanderbilt University.
D. R. Stuart, Princeton University.
William Tappan, Jefferson School, Baltimore.
A. T. Walker, University of Kansas.

As soon as all the members had been appointed, a chairman was elected. He submitted to the members interrogatories covering all the matters that had been proposed for the consideration of the commission and such others as are involved in the demand for uniform requirements and uniform examinations, and they sent their answers, with the arguments with which they supported their opinions, to their colleagues. This preliminary discussion prepared the way for the meeting of the commission, which was held in Cleveland on October 29 and 30, 1909. All members were present at every session, and the following definitions of college-entrance requirements in Latin were adopted by unanimous votes:

I. AMOUNT AND RANGE OF THE READING REQUIRED

1. The Latin reading required of candidates for admission to college, without regard to the prescription of particular authors and works, shall be not less *in amount* than Caesar, *Gallic War*, i–iv; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, *Aeneid*, i–vi.

2. The amount of reading specified above shall be selected by the schools from the following authors and works: Caesar (*Gallic War* and *Civil War*) and Nepos (*Lives*); Cicero (orations, letters, and *De Senectute*) and Sallust (*Catiline* and *Jugurthine War*); Vergil (*Bucolics, Georgics,* and *Aeneid*) and Ovid (*Metamorphoses, Fasti, and Tristia*).

II. SUBJECTS AND SCOPE OF THE EXAMINATIONS

1. *Translation at Sight.* Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

2. *Prescribed Reading.* Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, *Aeneid,* I, II, and either IV or VI at the option of the candidate, with questions on subject-matters, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.

3. *Grammar and Composition.* The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose. The words, constructions, and range of ideas called for in the examinations in composition will be such as are common in the reading of the year, or years, covered by the particular examination.

NOTE.—The examinations in grammar and composition may be either in separate papers or combined with other parts of the Latin examination, at the of the requirements shall be taken to prevent any college from asking questions option of each individual institution; and nothing in any of the above definitions on the grammar, prosody, or subject-matter of any of the passages set for translation, if it so desires.

SUGGESTIONS CONCERNING PREPARATION

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—just as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded and from the form and the position of the word itself. The habit of reading in this way

should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

A written examination cannot test the ear or tongue, but proper instruction in any language will necessarily include the training of both. The school work in Latin, therefore, should include much reading aloud, writing from dictation, and translation from the teacher's reading. Learning suitable passages by heart is also very useful, and should be more practiced.

The work in composition should give the student a better understanding of the Latin he is reading at the time, if it is prose, and greater facility in reading. It is desirable, however, that there should be systematic and regular work in composition during the time in which poetry is read as well; for this work the prose authors already studied should be used as models.

Increased stress upon translation at sight in entrance examinations is not recommended solely upon the ground of the merits of this test of the training and the ability of the candidate for admission to college. Two other considerations had great weight with the commission: the desirability of leaving the schools free to choose, within reasonable limits, the Latin to be read by their students; and the possibility of encouraging students and teachers alike to look upon the school work as directed toward the mastery of the laws of language and the learning to read Latin, rather than the passing of examinations of known content, a superficial knowledge of which may be gained by means unprofitable in themselves and in their effect upon the student's habits even vicious. The commission is supported in this recommendation by resolutions passed by the American Philological Association, the Classical Association of New England, the Classical Association of the Atlantic States, and various smaller organizations of teachers. Moreover, the recommendation is in line with the practice of other countries and the present tendency in our own country.

The adoption by the colleges of the definitions of requirements formulated by the commission will not necessitate any change in the reading of the schools, and there is no reason

to believe that the usual course of four books of the *Gallic War,* six orations of Cicero, and six books of the *Aeneid* will be at once generally abandoned or greatly modified. The course of study is not so likely to change as the methods of study. The commission feels, however, that it is wise to open the way for a wider range of reading, and that the schools should have the right to select the material to be read, the colleges contenting themselves with evidence that the reading has been so done as to furnish the right sort of training and the necessary preparation for their work. A flexible course of reading has many advantages. A change may be made when an author or style becomes wearisome or has grown so familiar that the change makes for a maximum of accomplishment, and the student who must repeat a year's work will generally do better if he has new reading. Besides, all authors and works are not equally suitable for all schools; difference in age and grasp should be taken into account, and students usually read with most interest and profit that to which their teachers come with most enthusiasm. The teacher, too, should have some incentive to increase his own familiarity with the literature.

It will be noticed that the amount of reading has not been diminished from the requirements now in force. The colleges which admit students on certificates from the schools will have no difficulty in exacting this amount, and experience shows that the substitution of sight-examinations for examinations in prescribed work has a tendency to increase rather than reduce the amount of reading. It will be noticed, also, that the choice of reading has not been left entirely to the schools. In addition to the more definite prescription of works for examination, the requirements limit the reading in school to certain works not usually read in colleges. Only schools which read more than the required amount will be free to go beyond these bounds.

The commission has prescribed for examination portions of the reading intended for the last two years of the school course only, inasmuch as students usually take the entrance examinations at the ends of these years. It is expected that colleges

which require only two years of Latin for entrance, or accept so much as a complete preparatory course, will set examinations in translation at sight rather than prescribe any portion of the reading.

The commission was instructed by the American Philological Association not only to formulate definitions of the college-entrance requirements in Latin, but also to further the adoption of these definitions by the colleges and universities of the country, in the interest of uniformity. A vote passed by the Philological Association in 1907 indorsed the demand that the requirements of different institutions should be expressed in identical terms, and this vote was approved in the subsequent action of the classical associations. The commission therefore respectfully petitions the authorities of colleges and universities to adopt, without material alteration, the definitions of requirements formulated by it. When uniformity has once been established, it will be easy to correct these definitions or change the requirements themselves by concerted action, if they are found, after sufficient trial, to be unsatisfactory. The commission has not attempted to make full definition of the requirements or a complete plan of examination. Although it has confined its recommendations almost entirely to the requirements and examinations in reading, it believes it has made possible the removal of most of the vexations attending the present variety in the Latin requirements.

The Commission voted on December 28 to ask colleges adopting the definitions of requirements proposed by it to announce their action before the beginning of the next school year, and to hold the first examinations under the new plan in 1911.

ESPERANTO AS A PREREQUISITE STUDY

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The statement is frequently made that a knowledge of Esperanto would be an admirable introduction to the study of the classic and modern languages. This is claimed by both Europeans and Americans, by instructors in both collegiate institutions and secondary schools. One veteran teacher of the latter rank has urged that a half-year taken from the first year's work in Latin, and devoted to Esperanto as a preliminary study, would so aid the progress in Latin that at the end of the four years' course his pupils would know more and better Latin than if they had spent the time during the entire course upon Latin alone.

This contention is well worth our notice; especially at this time when the secondary-school teacher laments that it is well-nigh impossible to teach Latin as it should be taught, because the pupils come from the grades with practically no conception of syntax or of grammatical categories, while the grade teachers retort that much time and care are spent in the effort to impart to their pupils an understanding of English grammar.

The plaint of the high-school teacher is not without foundation, nor does the fault lie wholly at the door of the berated grade-school work. To instil an appreciation of grammatical categories and syntactical constructions through the medium of English is indeed a herculanean task. The child has learned to speak English by a purely imitative process, and his grammatical constructions in his native tongue are due to memory-training. After he has used this language several years, and become fluent and free from self-consciousness in the use of it, he is suddenly confronted with a new situation. He must learn the reasons for what heretofore has been a process needing no reasoning. He is told the apparently arbitrary fact that certain

words are "nouns," that others spelled and pronounced just like those "nouns" are "adjectives," or "participles." He is taught that in a sentence like the familiar catch, "I think that that that that man read," the series of words, which to his secret soul are but repetitions of one and the same, must be called "conjunction, demonstrative, demonstrative used as noun, relative, and demonstrative," in the presence of the teacher. Small wonder that he is restive under this, and feels that he has already devoted enough time and energy to linguistics when he struggles patiently and long with the seemingly hopeless orthography of his beautiful but unreasonable native tongue!

When this pupil passes on to the secondary school, and begins Latin, French, or German, upon so imperfect a foundation, there is no cause for surprise that the task set is far beyond his powers, and demands two or three times as much exertion as it normally should. If he happens to choose Latin, or his parents rule that this shall be his choice, the first giant in his path is declensions and conjugations, presenting a multiplicity of forms that is apt to discourage him at the start. Next come the gender and agreement of words, the varied case uses with prepositions and without them, the ablative absolute, the gerund and gerundive, and the difficult syntax of the verb. This latter must be conquered in direct and in indirect discourse, in *cum* clauses and relative clauses, and various other clauses, with its annoying handmaids, *ne, ut,* and *non,* and its seemingly mysterious vacillation between subjunctive and imperative, and also between subjunctive, indicative, and infinitive.

Or again, the luckless pupil learns that "often," or "in great numbers," an adverbial construction in English, must be rendered in Latin by the participial adjective *frequentissimi,* which to him means only "the most frequent." He is taught that "at home" must be rendered by the *domi* which by all his previous lore should mean "of home." This, forsooth, gives him "mental discipline." But that mental discipline is in itself the goal of language-study is a discarded idea.[1]

[1] Cf. "Our Problem and a Platform," by Professor Thomas D. Goodell (Yale University), an address read before the New England Classical Associa-

A glance at the modern languages shows that the situation is similar to that existing in the case of Latin (and of Greek as well, as far as Greek is still a secondary-school study). Aside from the difficulties of pronunciation—no small item—the pupil is confronted with the same formidable complexity of forms, the multiplicity of endings for formal agreement in gender, number, and case, and peculiarities in modal uses in the verb. He meets a bewildering system of regarding certain of the expressions in his native tongue as "idioms," and therefore not to be translated literally, while others must be translated in some bizarre fashion, with a resulting phrase which he is informed is an "idiom" in the new language being studied. Why should "it is fine weather" be expressed by *il fait beau temps,* which to him means only "he or it makes beautiful time"? Why should "I wish I could" be expressed *je voudrais pouvoir,* which to him means "I would to can"? Why should "I went" be expressed *ich bin gegangen,* which to him means "I am gone"? The only answer in his puzzled brain is "Because!"

What solution does Esperanto offer for these difficulties? First, it gives a sound grammatical foundation, possible because of its significant word endings, absolute regularity of both form and syntax, and absolute freedom from irregularities in rules. The schoolboy may compare the English sentence cited above, "I think that that that that that man read" with its Esperanto equivalent, *Mi pensas ke tiu tio kiun tiu viro legis,* and he has the key to the puzzle immediately. From his Esperanto he has learned to appreciate what is idiomatic in English, and has appreciated its synonyms, its circumlocutions, and its figurative expressions. When he advances to the study of a second national language, he is ready to apprehend *its* idioms, figurative expressions, and circumlocutions. He is able to master them, because of the neutral viewpoint secured through his Esperanto.

This in itself means that he obtains a *Sprachgefühl,* a conscious feeling for language, by practice in reading, writing, and

tion, Springfield, Mass., and published in *The Classical Journal* for November, 1906. Cf. also the writer's discussion of Professor Goodell's article (entitled "The Esthetic Value of the Classics") in *The Educational Review* for March, 1908.

speaking a consciously acquired tongue. Having won this, each successive language undertaken is easier and easier. One who learns Esperanto has obtained an international vocabulary of international roots which lessens by fully 75 per cent. the number of new words to be memorized in any national language likely to be undertaken thereafter. This exceedingly noteworthy fact gives also to Esperanto an additional advantage, namely, the power of filling the rôle hitherto left to Greek and Latin alone, in their bearing upon the English language from a cultural point of view.

EDITORIAL NOTES

THE REPORT OF THE COMMISSION ON COLLEGE-ENTRANCE REQUIREMENTS IN LATIN

The Report of the Commission on College-Entrance Requirements in Latin, reprinted on pp. 115–20, deserves the attention of every reader who is interested in classical study, and may be suggestive also for workers in other fields. The difficulties caused by varying requirements in different colleges are by no means confined to Latin.

These difficulties are great. What looks like a small individual peculiarity in the requirements set by a particular college, as, for example, the requirement of the *Catiline* of Sallust, is sufficient to force a school to divide a class into two sections. The requirement of the *Eclogues* of Vergil by another college necessitates still another adjustment; and so the confusion and needless labor pile themselves up. Even a mere difference of emphasis upon translation at sight makes special arrangements necessary. Students who are to be strictly tested in this respect have to receive special instruction which others, who are not to be so tested, cannot be expected to take, since for these others a more exact coaching on the required work seems to be the pressing need.

For several years past, influential bodies of Latin teachers in various parts of the country have individually considered remedies for this waste of energy. A general movement has now taken place, under the auspices of the American Philological Association, through which it has been possible to unify the activities of the various associations considering the question. A Commission of Fifteen was appointed, composed of members of the three great classical associations east of the Rocky Mountains. It will be seen from the list of names that the North, the South, the East, and the Middle West, the high school, the normal school, the private school, and the college, were all represented. An exchange of views by correspondence, based upon a series of tentative questions sent to each member by the chairman, Professor Kirtland of the Phillips Exeter Academy, prepared the way for a meeting. At this meeting, which lasted two days, every member was present; and the report which was framed was passed without a dissenting vote. The fact is interesting, not only as a specimen of successful joint work performed by men living in widely separated parts of the country, but as showing how little ground there is for the idea sometimes heard that school men and college men feel their interests to be different, and look in different ways at their common problems.

The essence of the plan adopted is harmony of letter and spirit, with considerable freedom of detail. The *amount* of required reading is specified, while a large choice in the *placing* of this reading is left to the schools. Thus, for Cicero, an amount corresponding to the orations against Catiline,

for the Manilian Law, and for Archias, is required; but, except that examinations will be held upon the last two, the schools are free to choose their reading from any of the *Orations* of Cicero, the *De Senectute*, the *Letters*, and the *Catiline* and *Jugurtha* of Sallust. The examination in translation, except upon the two orations mentioned, will be at sight, and great variety in the literature used will therefore work no difficulty at this point. The two things of which the student must give proof by his performance are (1) that he has thoroughly mastered the small amount of set reading, and (2) that he has put his training here and elsewhere into effect, by acquiring the power to read corresponding Latin of moderate difficulty at sight. Similarly the choice allowed in poetry will make it possible for a teacher, within a few years, to cover the whole of Vergil in his class-work. This variety may be made of great advantage to him, and, indirectly, to his students. The sole conceivable danger would be that the work lying outside the required reading might be neglected; but this is met by the arrangement that the student shall receive credit on neither part of his examination if he has failed upon the other.

There are also to be examinations upon grammar and composition. It is left to the individual colleges to determine whether these shall be through separate papers, or in connection with the papers in translation. Careful provision is made that these examinations shall deal with the forms, syntax, vocabulary, and range of ideas which are common in the reading of the corresponding year or years—a precaution which was especially needed for the tests in sight-reading composition.

The commission also makes helpful suggestions looking toward the acquiring of a real power over the language (within the limits possible in the early years) and the cultivation of a feeling for English style. These suggestions have to do especially with training from the beginning in the art of reading Latin; with translation into idiomatic English *after* the meaning of the Latin sentence, in its own order has been apprehended; and with the discipline of the ear through the writing of Latin from dictation, through reading aloud, and through translating Latin read by the teacher. The wise recommendation is also made that the work in composition should be of such a nature as to give the student a better understanding of the author whom he is reading at the time. This is the one part of the plan of the commission for which the existing textbooks may prove inadequate. Our present manuals of composition, with their unrelated sentences, often false to the facts given in the text read, are not calculated by their subject-matter to help the student to understand what his author has to say to him.

The adoption of the plan will of course bring greater relief to eastern schools than to western, since a larger proportion of eastern pupils than of western prepare for the colleges which require examinations. But there are numerous western schools in which, from time to time, one or more

pupils are prepared for these institutions. A great deal of trouble, which might arise at any moment in *any* school, would thus be saved by the general acceptance of the scheme—to say nothing of the fact that the spirit of it seems in itself excellent.

It is greatly to be hoped that, when a plan apparently so good has been framed by so representative a body of men for the relief both of the schools and the colleges, the colleges throughout the country will at once prepare to put it to trial, adopting in their catalogues the definitions formulated. In the interests of a general harmony of aims and methods, this hope applies not only to institutions requiring examination, but to those also which admit upon certificate.

A BILL TO GRANT FEDERAL APPROPRIATIONS TO A PRIVATE INSTITUTION

The following memorandum from President James of the University of Illinois has been brought to the attention of the editors of the *School Review:*

There is a proposition now before congress providing for a grant of money to the District of Columbia equal to the annual appropriations made to the various states and territories for the promotion of agriculture and the mechanic arts, and assigning the said sum of money to the George Washington University, a private institution in the District of Columbia.

Identical bills have been introduced to this effect into the Senate (S. 530, introduced March 25, 1909), and into the House of Representatives (H. R. 12343, introduced December 6, 1909), and a determined effort is being made by the friends of the institution concerned to secure the passage of the measure.

Under cover of providing for the need of education in agriculture and the mechanic arts in the District of Columbia it is thus proposed to begin the policy of the support of private institutions of the District out of the federal treasury, a policy which the whole experience of this country condemns as full of danger to the peace and efficiency of public education.

If Congress deems it wise to establish a college of agriculture and the mechanic arts in the District of Columbia, at federal expense, it should create a college for that purpose either under its own immediate control and supervision, or under the control of the authorities of the District constituted by Congress and not pass the money over to the support of one or more private institutions.

There are three other institutions of private and sectarian character in Washington, each one of which is just as well entitled to such a federal grant as George Washington, namely: the Catholic University of America, the Georgetown University, under the patronage of the Jesuit order, and the American University, under the patronage of the Methodist church.

The two former are well endowed institutions with long records of activity and useful service behind them, and the last, not yet opened, has the beginnings of a fine plant for higher instruction.

If Congress undertakes to subsidize George Washington University the other three institutions will be compelled as a mere matter of self-preservation to secure

similar subsidies and we shall soon see an elaborate system of private schools and colleges and universities in the city of Washington supported in whole or in part from the federal treasury.

This matter has been fought through in most of the states to a successful finish, and the policy has been once for all definitely established that no public money shall go to a private or sectarian institution.

Only in this way can the true interests of public education be safeguarded.

It must be emphasized again that in effect this is a project to endow private and sectarian institutions at the expense of the federal treasury. If it were a scheme fathered only by a state or territory it would be bad in itself but not likely to have the far reaching evil effect upon public policy among the states which federal action is sure to have.

No satisfactory argument has yet been advanced for this measure except that its passage will greatly benefit George Washington University, which happens to be in a very bad way financially. The appropriation indeed may save it from the sheriff's hammer.

But this is hardly a satisfactory reason for reversing the policy of a century and throwing the immense weight of the example of the federal government on the side of a division of the public funds among the private and sectarian institutions of the country.

The situation is a serious one. This is a dangerous proposition and ought to be opposed by every citizen who looks with disfavor upon the attempt made over and over again to support private institutions out of the public treasury.

The situation is not changed by the fact that it is proposed to add the Secretary of Agriculture and other public officials to the Board of Trustees of said private institution. In fact this makes the scheme so much the more dangerous viewed as to its effect in the long run and would commit the federal government still more completely to the support of this private enterprise.

Those who share the views expressed in this memorandum should bestir themselves in opposition to this measure. They should write immediately to their representatives in the House and Senate of the federal congress and protest against this proposed reversal of the well-established policy of the country for more than a century.

The bills are before the agricultural committees in the Senate and House.

The names of the members of these committees are printed below. Letters to the chairmen of these committees, or to any member of the same, especially to the members from one's own state, would be of value. Letters of protest addressed to the Speaker of the House of Representatives, Hon. Joseph G. Cannon, would be especially in place, as under the rules of the House he has great influence in securing the proper consideration of public measures.

Proper consideration of this measure, with opportunity for all interests to be heard, will dispose of it and similar measures in the future for all time to come. The policy involved in the passage of this bill would lead directly and quickly to the sacrifice of our American plan of keeping public and private enterprises, state and church clearly separated.

What is to be done must be done quickly.

EDMUND J. JAMES

Urbana—Champaign, Illinois

List of Committees on Agriculture

SENATE COMMITTEE

Jonathan P. Dolliver, of Iowa; Francis E. Warren, of Wyoming; Henry E. Burnham, of New Hampshire; George C. Perkins, of California; Elmer J. Burkett, of Nebraska; Simon Guggenheim, of Colorado; Carrol S. Page, of Vermont; Martin N. Johnson, of North Dakota; Hernando D. Money, of Mississippi; John H. Bankhead, of Alabama; Thomas P. Gore, of Oklahoma; George E. Chamberlain, of Oregon; Ellison D. Smith, of South Carolina.

HOUSE COMMITTEE

Charles F. Scott, of Kansas; William W. Cocks, of New York; Ralph D. Cole, of Ohio; Gilbert N. Haugen, of Iowa; James C. McLaughlin, of Michigan; Willis C. Hawley, of Oregon; Joseph Howell, of Utah; Pleasant T. Chapman, of Illinois; Charles C. Pratt, of Pennsylvania; L. B. Hanna, of North Dakota; Frank Plumley, of Vermont; John Lamb, of Virginia; Asbury F. Lever, of South Carolina; Jack Beall, of Texas; William W. Rucker, of Missouri; Augustus O. Stanley, of Kentucky; Gordon Lee, of Georgia; James T. McDermott, of Illinois; William H. Andrews, of New Mexico.

COMMENTS BY THE EDITORS

None of the editors of the *School Review* has commented favorably on the bill referred to by President James. Some have refrained for the present from expressing any opinion, opposing only the haste that would preclude a careful study of the situation, and some deem the bill so unlikely to receive favorable consideration in Congress as to make comment superfluous. A larger number, however, have expressed their opposition to the bill in no uncertain terms. We quote the following statements, with the permission of the writers, as typical:

The announcement that national aid is proposed for the George Washington University comes to me as a complete surprise. The question has been threshed out in many states with the result that the broadest toleration but no state aid to private schools has become an established American principle. I should think it calamitous for Congress to undo what has been done, and open the floodgates for all kinds of appropriations to private schools in the future.

George B. Aiton
State Inspector of High Schools, Minneapolis, Minn.

The proposal now before Congress to make an appropriation for agriculture and allied studies and turn this appropriation over to the George Washington University, a purely private institution of the District, seems to me in every way reprehensible. Similar attempts of this sort have been made at various times for more than a century in this country. Hitherto the public sentiment of the country has met the matter squarely in the spirit of the constitution and of the whole people of the country. Public education in this country can never properly be relegated to private hands at public expense. I am fully in favor of having the District of Columbia properly provided for by a public institution which shall in the right way serve the interests intended in this bill, so

far as the public is concerned; but I shall oppose bitterly in every way I can the transfer of this public money to a private institution for this or any other purpose.

L. H. JONES
President of the Michigan State Normal College, Ypsilanti, Mich.

I am not in favor of the support of private institutions in this country by public taxation—at least, not until it has become reasonably certain that American institutions would not be involved in hopelessly intricate and unnecessary problems, the solution of which would involve greater stresses than we now feel at any point.

C. C. VAN LIEW
President of the California State Normal School, Chico, Cal.

REPLY TO PRESIDENT JAMES

As the *Review* was about to go to press a statement was received from Dr. Charles Willis Needham, the President of the George Washington University, from which we quote as follows:

By what course of fair reasoning can it be said that the granting of this aid to the District of Columbia and the designation of an existing University to administer the fund is the "beginning of a policy to support private institutions in the District out of the federal treasury"? Is there any precedent that supports or justifies such a statement? The first Morrill Act was passed in 1862. There were few state institutions at that time, and many states designated institutions to administer the fund such as Yale, Brown, Dartmouth, and others, that carried on some of the work specified in the Morrill Acts. Did these states thereby "begin the policy of the support of private institutions"? Did the federal government by recognizing the work of these institutions and paying over the money from the federal treasury commit itself to such a policy? On the contrary, while the states used these agencies, for the time being, to carry out the beneficent objects of the Morrill Acts, as soon as a state-supported college was established this fund was transferred to such college. The "private" institution, no doubt, regretted the loss of the appropriation, but no one questioned the right of the state to make the transfer. No one claimed that there was a vested right in this fund, much less that by the grant there had been established a policy to "support the private institution."

The Morrill Acts are explicit in designating the kind of education they are intended to foster. They were to support "at least one college" in each state and territory, "to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." (See sec. 4 of the first Morrill Act.) The second act provides that the annual appropriation is to be applied to instruction *in a college*, "with special reference to their applications in the industries of life and to the facilities for such instruction." To ascertain that this purpose is carried out by the institutions designated to administer the fund, annual reports are required by the federal government from each college receiving the benefits, showing how, and for what subjects, the money has been used. No allowances are made except for specified subjects.

The total amount each state and territory may annually receive is fixed by the statute. The uses to which the fund can be applied are expressly enumerated, and no part of the appropriation can be used for objects not mentioned. How then can it be truthfully said that a bill to extend the benefits of these acts to the District of Columbia and to designate an institution to administer the fund has for its purpose any other than the specific objects named in the Morrill Acts?

The next fallacy is the statement that there are three other institutions in the District, which he names, "each one of which," he says, "is just as well entitled to such a federal grant." President James is very careful to note the denominational character of each of these universities. Two of the institutions mentioned do not maintain colleges of agriculture or the mechanic arts. One has not yet opened its doors. The George Washington University, in addition to its College of Liberal Arts, has a College of Engineering, and of Architecture, a Teachers' College, a Veterinary College, and a College of Pharmacy. In all of these colleges it is doing undergraduate work of the technical and scientific character, specified in the Morrill Acts. It has over five hundred students in these colleges (not including its students in arts and the professional departments of law and medicine). The University is expending this year over forty thousand dollars in current expenses in this special field. While the unworthy insinuation of President James regarding the financial needs of the University is not true, it is true that this technical work in the mechanic arts may have to be discontinued at the end of this year unless congressional or other aid is forthcoming. The University is absolutely nonsectarian, both by the terms of its charter and in fact.

This matter of extending the benefits of the Morrill Acts to the District is a local question, and Congress, as the legislature of the District, must designate the institution to administer the fund. If Congress gives to the District the benefits of this fund and follows the precedents, it will utilize, for the time being, an existing institution that is actually doing the work called for by these beneficent acts. If in time Congress shall establish a "state institution" for the District to do work along these lines, it will then, as the states have done, designate such institution to administer the Morrill fund. If any other private institution in the District shall hereafter enter this field of work with a College of Agriculture or a College of the Mechanic Arts, it will then be time to discuss the matter of a *division* of the fund between the local institutions. The passage of this bill giving the benefits of an established and fixed fund to the District, will not in any degree be a precedent for additional appropriations to any new college.

If anyone desires to prevent his fellow-citizens of the United States in government service, residing either permanently or temporarily in the District, from receiving and enjoying the beneficent federal aid given to each state and territory and to Hawaii and Porto Rico—amounting this year to forty thousand dollars—then let him hasten, as requested by the president of this state institution receiving nearly a million dollars annually from the people of Illinois, and write his senator and representative to that effect. But let him not be moved to do this by false premises or fallacious reasoning.

The following rejoinder to this statement has just been received from President James:

A REJOINDER

The friends of George Washington University are trying to evade the issue. The question of extending the privileges of the Morrill Land Grant Act to the people of the District of Columbia is not at all involved in the bill granting aid to the George Washington University from the federal treasury, since if Congress desires to do this it may accomplish it in other and better ways. The simple question is, Shall Congress make a grant of from $40,000 to $100,000 a year to the George Washington University, a private institution? I am opposed to this for the following reasons:

1. Congress should not grant money from the public treasury to a private institution, whether sectarian or not, as it would inevitably lead to all sorts of complications prejudicial to the public interest, and in this case would certainly lead to grants to three other private institutions in the District of Columbia which are avowedly sectarian.

2. If it desires to grant money to a private institution it should select one whose record on the subject of sectarianism is not so wobbly as that of the George Washington University. The George Washington University is the old Columbian University, which in turn was the Columbian College chartered by Congress in 1821. This college, which had in its charter exactly the same so-called non-sectarian provision as the George Washington University, was properly described by a wit as a "non-sectarian college under denominational control;" i. e., while the charter forbade any discrimination in the selection of the Board of Trustees or president on account of religion, yet from the beginning down to 1905 the president and a majority of the Board of Trustees belonged to one denomination and all the presidents but two were clergymen of that denomination. Under the present charter the Board of Trustees could do exactly the same thing and limit their choice to members of one denomination. They have worked out a scheme of denominational colleges organized under the jurisdiction of the George Washington University, and under this plan they could all receive aid from the grant if once made, no matter what the law provided.

3. If Congress wishes to select a private institution as an object of its bounty it should select one which has been able to manage properly its own finances, instead of one which has reached such a pass as the George Washington University.

4. In its disposition of the Morrill Fund Congress should not follow the bad example set by a few of the states a generation ago, by adopting a policy which no state in the Union would think of adopting today if its hands were free from the entangling alliances of forty years ago.

The present situation is in my judgment full of peril for the welfare of American education, public and private.

BOOK REVIEWS

The Reorganization of Our Colleges. By CLARENCE F. BIRDSEYE. New York: Baker & Taylor Co., 1909. Pp. ix+410.

This second volume by the author of *Individual Training in Our Colleges* is in part a further analysis of present conditions, and in part a plea for what is conceived to be the most needed reform, namely, a separate department of administration.

The aspect of the present situation which most impresses the author is its seeming wastefulness—not so much waste of money as waste of boys. About half who enter college do not graduate; a considerable percentage contract vices and attendant diseases; many become habituated to a low standard of achievement. This waste the author believes to be due not to pedagogical reasons primarily, but to the failure on the part of the colleges to employ a more adequate organization in dealing with the large numbers and changed social conditions. In the old small college the president could attend to the administration; and besides, the faculty were in a position to look after the students individually. In our large institutions the members of the faculty are now expected to specialize as scholars, the president has a multitude of general duties, and the administration has been tacked on as an extra burden to teachers already sufficiently occupied. Hence administration is now very poorly provided for.

From the student's standpoint the college presents two main divisions: (1) the time spent with instructors, (2) student life. This last is subdivided into (*a*) community activities, notably athletics, and (*b*) college home life, in which fraternities are a leading feature. The first division is naturally the immediate care of the pedagogical forces, but as this occupies only one-tenth of the student's time a large share of college influence must be controlled and guided in some other way, if at all. As a matter of fact it has been left mainly to the students themselves, and it is here that the troubles have their source. The pedagogical department cannot get good results from the students if student life is neglected. But—and this is the author's chief contention—the pedagogical department is not the one to remedy the trouble. Teachers should be left free to teach, not burdened with administrative cares. What is needed is a distinct department, to attack the situation from another angle. Such a department would make the student its center and look at instruction, community life, and college home as co-ordinate factors. It would keep such records as to know definitely about every student. It would study the desirable equipment, number of faculty, size of classes, and other factors from the point of view of student needs. It should be coequal with the department of instruction, while the president as general executive would deal with the interests of the institution as a whole, relying on the various departments for the expert knowledge of details.

That we need specialists in administration, just as we have specialists in the field of research or teaching, and that our large institutions must find new

methods of organizing student life if they are to be good places for the average boy, most thoughtful persons would agree. And that many suggestions might come from a study of business organization may well be true. But most who realize the subtle and complex nature of all human beings will be skeptical of the complete efficacy of any one scheme. It is highly important to follow up individual students, but Professor Dearborn's study has shown that most students maintain about the same rank in college as in high school. Are our present economic and social conditions bringing a sufficient number of commanding personalities into the teaching profession? Can we get the real thing we want from college life without some sort of living together —something more than the classroom? Is the subject-matter of instruction as well suited to the college student of today as that of a half-century ago was to the classes who then were in attendance? These are some of the questions we shall have to face. If the department of administration is to investigate these fundamental questions, by all means let us have one; but I suspect many will want a chance to have a say before they are settled, and it is not entirely time wasted when the average teacher is forced to do some thinking about them.

JAMES H. TUFTS

THE UNIVERSITY OF CHICAGO

Méthodes américaines d'éducation générale et technique. By OMER BUYSE. Paris: Dunod et Pinat; Charleroi: Musée provincial de l'enseignement technique, 1908. Illustrated. Pp. 744.

Since the days of Bache and Horace Mann American educators have often journeyed to Europe to learn of the progress of education on that side of the ocean and to bring back inspiration for the conduct of our own schools. It has been comparatively rare for European observers to come to this country on a similar errand. M. Omer Buyse, curator of the Provincial Museum of Technical Education for Hainault, and director of the Higher Provincial Industrial School at Charleroi, Belgium, has published in the volume whose title appears above a painstaking and exhaustive study of some phases of our American educational system from data gathered during a sojourn of several months in this country. The wealth of material collected is enormous. M. Buyse traveled widely over the northeastern section of the United States, visiting schools from Boston to Chicago and St. Louis, and reaching at least as far south as Hampton. He is a keen, intelligent observer, his previous training having given him a proper apperceptive basis for appreciating accurately the particular phases of our educational system he set himself to describe. Withal he has been a most sympathetic critic, if anything erring on the score of too lavish commendation, rather than of too faint praise. Even here one is not justified in judging him too critically, and his shortcoming, if such it may be characterized, lies in the fact that he confined his account to the best in our schools. He selected the best field for observation, and evidently restricted himself to the best institutions in that field. Unfortunately our schools the country over hardly measure up to that high standard.

M. Buyse has not been content to carry back with him a mass of general impressions. He presents detailed facts in regard to the material installation,

the equipment, etc., of our laboratories and technical schools in general, together with the cost of the same. The wealth of fine and well-chosen illustrations is an especially valuable feature. On these accounts alone the book, if it were only in English, might be most advantageously put into the hands of every American superintendent or other administrative officer who is likely to undertake any phase of this technical education. Indeed, the reviewer knows of no English publication that sets forth so accurately, much less so comprehensively, the technical and professional education in our own country. The following titles will show more clearly the scope of the work: Book I, "Elementary Education;" Book II, "Secondary Education;" Book III, "Industrial Education;" Book IV, "Professional Education;" Book V, "Education of the Racially Backward" (Negroes and Indians); Book VI, "Commercial Education;" Book VII, "Higher Technical Schools."

One might have wished to see the education of girls more adequately treated. Certainly the few pages found here do not measure the relative importance of the subject as compared with the education of the other sex. The author seems to have been influenced by European rather than by American conditions. Again, his connection with the field of technical education doubtless accounts for the complacent way in which he views the status of the manual-training movement. He expresses his own conviction in no uncertain terms when he says: "The type of the manual-training school of the future is fixed" (p. 261). On the contrary, this school is even now under fire. Manual training as a subject of instruction is open to very serious criticism. Not that it should disappear from our schools, but it should be used, not abused.

M. Buyse contrasts very intelligently the European and the American ideal, not always to our credit. "From the earliest years, the child [that is, the American] is different from our own. We want our children to be obedient, well disciplined; the Americans, even more than the English, desire above all to have young people of initiative, of independence, full of self-confidence; they are willing to suffer their attacks of caprice, and at times even their tyranny" (p. 8). Nevertheless, on the whole, the author is well pleased with the effectiveness of our educational machinery. With characteristic Gallic pregnancy of phrase he expresses much in a single sentence: "The spacious buildings wherein certain of the schools are housed, the wealth of equipment and installation, the hygienic precautions taken to safeguard the health of the children surpass one's fondest dreams" (p. 210). (The author has only to visit some of the new elementary schools in Brussels, his own capital city, to find an installation and hygienic equipment that surpass anything the reviewer has seen in this country.) "While the American pupil is an actor in school activity, the European pupil is an auditor, a passive spectator who listens to scientific truth ready made, at second hand, so to speak" (p. 397). "The schools of all grades are centers of education; in Europe, they are institutions for instruction" (p. 715).

Like foreign publications in general, the book suffers materially from the absence of an index. It is, nevertheless, a most commendable piece of work, and in spite of some few inaccuracies of expression (very few indeed considering the magnitude of the task and the fact that it was written by a foreigner) it will unquestionably do much to disseminate among European readers a knowledge

of many of the excellencies and only a few of the defects of our American system of technical education.

L'éducation, revue trimestrielle illustrée d'éducation familiale et scolaire. Edited by GEORGES BERTIER. Paris: Vuibert et Nony, 1909. Vol. I, No. 1, March, 1909. Foreign subscription, Fr. 6.50.

The appearance of a new magazine always suggests the question: "What is the need for such a publication?" The editor of *L'éducation* attempts to forestall this question in the opening paragraph of his first number. The real truth is that France has no *Educational Review*. She is far more adequately supplied with periodicals that deal with special phases or degrees of education even than we in America, but there is nothing of a general nature.

The new review, starting as a quarterly but with a veiled prophecy of becoming a monthly in 1910, is an attempt to satisfy this need. It aims to be a kind of educational clearing-house through which its readers may keep in touch with the progress of educational thought and activity. Furthermore, it promises to be an international review, and the assured co-operation of English, German, and American collaborators seems to indicate that this promise will be fulfilled. It also presents an appeal to parents as well as teachers, but it is rather difficult to see how it will attract many of the former among its readers. Questions of politics and religion are rigorously to be tabooed.

The fact that the editor is M. G. Bertier, the successor of the late M. Demolins as director of the École des Roches (see *Elementary School Teacher* for January, 1906) might seem to suggest that *L'éducation* is interested in carrying on a propaganda for the so-called "new education" as typified by schools like Abbotsholme and Bedales in England, the École des Roches and the Collège de Normandie in France, and the *Landerziehungsheime* in Germany. In fact the names of the directors of the last four of these schools appearing on the list of patrons and collaborators would seem to lend credence to this belief.

L'éducation sets before itself a threefold purpose: to present several original articles on topics of lively interest; to give the progress of educational events, including here summaries of other publications, communications, etc.; and finally, to print analyses and reviews of educational books, old as well as new, from French, German, English, and on occasion from other languages. In proposing "to pass unnoted no fruitful method, no suggestive book, no object of real use, no interesting essay," the editor is setting up an ideal sufficiently high to satisfy the most ambitious.

The titles of the original articles in the first number will give a more comprehensive notion of the scope of the magazine: "Intellectual Education;" "A Geography Lesson in the Light of a Recent Cataclysm" (the earthquake in Sicily); "The Balance Sheet of the Programme of 1902;" "The Teaching of Drawing;" "Sex Education in the School;" and "Fundamental Principles of the *Landerziehungsheime*." This first number is decidedly interesting. The editor has set a standard here that will be by no means easy to maintain.

FREDERIC ERNEST FARRINGTON

THE UNIVERSITY OF TEXAS
AUSTIN, TEXAS

Personality in Education. By JAMES P. CONOVER. New York: Moffat, Yard & Co., 1908. Pp. 266. $1.25.

St. Paul's School has stood for certain interests of value in American education, and it is good to find this author, a master in that school, calling for the meeting of an important need—the training of teachers, including "early practice under the same kind of supervision which the young doctor gets at the hospital." Our private schools in England and America do not always see this need as clearly as we could wish.

The book begins with a chapter on "The Teacher," and discusses a considerable range of subjects. One of the most suggestive chapters is that upon "Examinations." English influence appears in many forms here, and also in the strong lament that cricket is not more popular in American schools. The following statement shows this tendency:

"England is a fair example of what may be accomplished in the world by a nation whose method of education and whose method of government have been conducted throughout on an established order, constantly applied to the ever-changing circumstances of men and things, and, therefore, constantly tested and modified by facts."

This appreciation of things English and established helps one to understand the "school sermon" tone of many of the chapters, and the unconscious assumption of superiority—in fact, uniqueness—of the Church of England in religious education. The inadequacy of Unitarianism and of Catholicism is calmly treated, while the other "dissenter" is not even haled into court. The spirit of religion is the essential thing to the author, but the possibility of this spirit without the Catechism and the Book of Common Prayer seems inconceivable to him.

There is much quotation from Briggs, Thwing, Newman, and others, in accord with the general tone of the book. The result of it all is a work which many schoolmen might well read in order better to understand some currents in our educational movement, but in which there will be found little appreciation of many other currents, running with more force, if not with more violence, and as confidently supposed by those in them to be the whole of the situation as these quieter streams are here accounted the only reality. We need to know both.

Habit-Formation and the Science of Teaching. By STUART H. ROWE. New York: Longmans, Green & Co., 1909. Pp. xvii+308. $1.50.

This type of book is as valuable as it is unusual. The author made an investigation several years ago of the formative value of the study of Latin and Greek. The results convinced him that the chief disciplinary merit of training in these languages lay in the "habits engendered in connection with attention, rapid interpretation, classification, and contemplation of life from another's point of view." What is, however, of greater significance is that as a by-product appeared the fact that we have no "scientifically established method of securing the habits sought." For several years those who have had relations with Dr. Rowe have known that he has been studying this particular need and has bent his best energies to the organization, in scientific form, of the "relation of habit to education" and to the treatment of the "subject of

for students in normal schools. Dr. Hoyt has formulated, from his experience, a clear-cut theory of such a book, and has devoted no small labor to its embodiment in the present volume. Briefly, his theory is this: (1) Treat a few subjects in some detail, instead of attempting a thin summary of many; (2) Discuss educational reformers, rather than the general educational tendencies of various periods; (3) Supply a liberal background of general history and biography for the theories of each reformer; (4) Compress much elementary information into the text, but let this be merely the starting-point for further reading; (5) Supply references for such reading; (6) Distribute through each chapter questions which can be answered only by going to these references; (7) Add other questions which require the student to think on what he has read; (8) Do not assume any preliminary historical or philosophical training on the part of the student.

Acting on the first two principles of this theory Dr. Hoyt has treated in his seven chapters only seven general topics, six of which are biographical: "Comenius," "Rousseau," "Pestalozzi," "Herbart," "Froebel," "Horace Mann," and "European Influences on Education in America." Other principles are worked out in the subdivisions of the first six chapters, each of which contains general historical and biographical introductions, a one-page chronology of the life of the reformer under discussion, a list of references for further reading, a short sketch of his theories, illustrative quotations from his writings, and a summary which includes an estimate of his influence on the education of today. Each chapter is supplied with abundant questions of the types named above. In the constant use of these old but important devices Dr. Hoyt surpasses all his predecessors; the pedagogic apparatus is decidedly the best feature of the manual. The matter is usually within the comprehension of the students for whom it is written. There are six portraits, three maps, and a historical chart.

So much hard work has been done to make this textbook teachable that one regrets to note its serious defects in scholarship. The general historical surveys are so inaccurate as to need pretty complete rewriting; there are, for example, nearly a dozen glaring errors on the first two pages of the first chapter; and these, unfortunately, are only the forerunners of many more. No principle of selection seems to have been adopted regarding biographical facts, which too often run into trivial detail. The summaries too often credit reformers with reforms which they did not initiate, and with influences on modern education which they do not exert; the book as a whole tends to exaggerate the importance, in the history of modern education, of the six reformers named; in these matters, however, it is no worse than many others. In fine, Dr. Hoyt has devoted attention more successfully to the ways of teaching the subject than to the facts of the subject itself.

ARTHUR O. NORTON

HARVARD UNIVERSITY

Latin Lessons for Beginners. By DANIEL W. LOTHMAN. Boston: Ginn & Co., 1908. Pp. xi+178.

In his preface Mr. Lothman states that he believes in a more extensive and intelligent use of the grammar in the early stages of the study of Latin, and that

his book is written for those teachers who share this opinion. The work combines the older and the newer methods. The grammars of Allen and Greenough, Bennett, and Harkness are referred to for paradigms and rules, but very explicit and intelligent explanation of the principles involved accompanies the references. The book contains a good outline of English grammar, which is referred to in the early lessons; but a much more extensive use of it should be made with young and immature pupils. Other merits of the book are the systematic study of derivations, of the fundamental principles of formation, and of the order of words, the association of forms and their meanings, and the thorough reviews at the close of every twelve lessons. The treatment of the sequence of tenses and of the ablative absolute especially commends itself. The hypercritical may object to *ventus, mansus, tentus, perterrui,* and *discessus,* given in the principal parts, but these forms are justifiable on pedagogical as well as on lexicographical grounds. Objection may reasonably be made to the statement of the rule for the gender of nouns of the second declension, to the use of the term predicate nominative, and to the treatment of *i* as short throughout the perfect subjunctive.

The book is manifestly the endeavor of a practical, experienced teacher to make the study of Latin intelligent. It is unusually free from typographical errors.

F. O. Bates

Central High School
Detroit, Mich.

Experimentelle Paedagogik. By W. A. Lay. Leipzig: B. G. Teubner, 1908. Pp. 125. M. 1.25.

This little book treats more comprehensively and less technically the subject dealt with in its author's *Experimentelle Didaktik* of 1903. It is a more or less popular summary for the use of teachers, educated parents, and others intelligently interested in education. It develops the author's previously expressed views, justifies experimental pedagogy, and gives a brief history of that branch of education. Some consideration is given to the pedagogy of defective children as well as to child-study in general, but none to adult psychology.

The book under review has two main divisions, the first treating of the nature and significance of experimental pedagogy, the second of its special results and problems. The principal topics dealt with in the first part are the history, methods, aim, and scope of experimental pedagogy. This part of the work is marked by admirable clearness and brevity. In the second part of the book, which deals with the special results and problems of experimental pedagogy, there is, on the other hand, a marked liberality in the choice of material. Individual factors, such as the size of the head, natural factors, such as the seasons of the year, and social factors, such as the prevalence of child labor, are treated as forming the general conditions of education, and the results of investigations on these different influences are systematically recorded.

Dr. Lay devotes a great deal of space in *Experimentelle Paedagogik* to investigations concerning what he calls the fundamental principle of pedagogy, namely, that instinctive and acquired reactions form the basis of all education,

that ideas and conceptions, elaborated according to the prescriptions of logic, aesthetics, ethics, and religion, result in action, which in turn reacts on and modifies the initial ideas and conceptions. This view of education is confessedly biological in its origin. The child is regarded as an organism reacting to stimulation. This way of regarding education is not at all new to American readers. Perhaps we should be grateful to Lay for the emphasis laid by him upon what he calls elaboration, the process intermediate between impression and expression. His *Experimentelle Didaktik* had treated in a very satisfactory way the importance of the motor sensations and the dynamic factors in education. In the *Experimentelle Paedagogik* there seems to be a degree of irrelevance in the author's exposition of his educational theory. It seems a little forced to devote over half the space to *impression, elaboration,* and *expression,* and to record heterogeneous child-study investigations under each of these headings. Why, for example, is Schmidt's study of the homework of school children mentioned in that section of the book dealing with elaboration, or why is the research of Lobsien and others in reference to memorization, or the investigation of Schuyten in reference to the learning of foreign languages recorded in the section dealing with expression?

Lay, in conclusion, glancing over the many fields that have already been treated by experimental pedagogy, expresses the hope that all departments of instruction and education may be brought under the research methods of comprehensive observation, statistical treatment, and experiment, and that pedagogy may be recognized as being, like medicine, an art resting on a scientific basis. He urges the founding of pedagogical laboratories under state, municipal, university, and normal-school control.

WALTER LIBBY

NORTHWESTERN UNIVERSITY

The Economy and Training of Memory. By HENRY J. WATT. New York: Longmans, Green & Co., 1909. Pp. 128. 1s.6d.

This little book gives briefly and in non-technical language the results of the experimental work on memory and imagery. In connection with each topic the author attempts the difficult task of framing rules as to the best methods of memorizing and learning in practical life. While his adjustment of theory to practice is on the whole sane and helpful, there is no attempt to connect with the *special* problems of the school. The author believes in the existence of imageless thought, and his desire to differentiate it from imagery processes renders the treatment of logical memorizing unsatisfactory. To pass to the positive contributions of the book, the following illustrations will give some idea of its character. From the fact that an interference in recall occurs where two things have been associated with a third, the conclusion is drawn that a child who hesitates should not be allowed to give a wrong answer. The teacher should let another child give the correct answer or himself give it. The influence of the will is very effectively brought out. The experimenter who reads his material aloud to his subjects is much slower in learning it than they, because he does not will to learn it. Eighty repetitions of an irrelevant association will hardly suffice to overthrow the intention of a trained mind to answer

correctly. The familiar idea that learning a thing through several senses is better than learning it through one, which goes back at least as far as Pestalozzi and is vouched for by no less an authority than James, is given up. Energy should be concentrated on one method so that it becomes reliable. The individual differences in types of imagery, however, necessitate the teacher's presenting the subject-matter in a number of different ways, so that the above direction applies to the learner rather than to the teacher. In his advice to learn thoroughly before trying to recall, the author would do well to consider the results of Witasek in his investigation, "Ueber Lesen und Rezitieren," in the *Zeitschrift für Psychologie*, Band 44. The book is thoroughly scholarly. It should find most immediate use as a text in college courses in educational psychology, and in some normal schools.

HARVEY ANDREW PETERSON

ILLINOIS STATE NORMAL UNIVERSITY
NORMAL, ILL.

Beginner's Botany. By LIBERTY H. BAILEY. New York: Macmillan, 1909. Pp. x+208. Illustrated. $0.60 net.

Professor Bailey is one of the most prolific writers of the day on botanical and horticultural topics. His books have always been welcomed by the general public as well as by scientists and teachers, and it seems certain that his latest work on elementary botany will find acceptance with both these classes. The instructors will approve of its beginning with plants as they grow together, and of its having among its first chapters such topics as "The Struggle to Live," "Survival of the Fit," and "Plant Societies." A further appeal to those who teach is made in the very suggestive exercises and questions at the close of each chapter.

The general public will be interested in the connection that is made between botany and industrial life as represented by gardening and farming, for not only is the economic aspect of the science given adequate attention but the illustrative material is taken largely from the garden and orchard.

To those familiar with the author's previous works upon this subject it will be sufficient to say that the present volume is a simplified edition of his larger botany, rearranged and altered in accordance with the advance of science. Others may be interested to know that the book contains material for a half-year high-school course upon the seed plants, together with a couple of chapters dealing with some of the lower forms of plant life. Like all of Professor Bailey's books, it is charmingly written and pleasingly illustrated. Most of the cuts are small but very appropriate and helpful. By its simplicity of treatment it is particularly well fitted for use in the grammar grades and in the first year of the high school. The nature-study teacher in the grades should have a copy, for in it she will find suggested many lessons suitable for her classes.

If one were to presume to criticize the contents, one might desire that less space should be devoted to the definition of descriptive structural terms, and more given to the consideration of such structural features as are definitely related to the activities of the organism. One might also regret that "endogenous" stems had not been relegated to some scientific rubbish heap, or be surprised to

learn about the "stomates" of Marchantia. But really there is far more to commend than to condemn, and the book will doubtless, by its very clearness and simplicity, prove itself one of the most satisfactory of beginners' botanies.

GEORGE D. FULLER

THE UNIVERSITY OF CHICAGO

Human Body and Health—Intermediate. By ALVIN DAVISON. New York: American Book Co., 1909. Pp. 223. Illustrated. $0.50.

Professor Davison says in the preface: "An effort has been made to present in this book the subject of personal and public health in such a way as to appeal to the interest of boys and girls, and fix in their minds the essentials of right living. Knowing anatomy and physiology is of little value to our young folks unless it helps them to practice intelligently in their daily lives the teachings of hygiene and sanitation." This is an admirable statement of the motive that should govern the teaching of physiology and hygiene in the elementary school.

This volume marks a distinct advance over the school textbooks that have been in general use; but the author has not carried the reform far enough. If the description of anatomical structures, functions of organs, and statements regarding the effects of tobacco and alcohol had been condensed still further to make room for a more complete treatment of the cause and the prevention of disease, and the means of increasing vitality, the book would be even more valuable.

The treatment is clear and interesting, the illustrations are numerous and exceptionally good, and the material on hygiene and sanitation is very well chosen.

Physiology and Hygiene for Young People. By ROBERT EADIE AND ANDREW EADIE. New York: Scribner, 1909. Pp. vii+353. Illustrated.

This volume belongs to the group of new school books on physiology and hygiene in which an attempt is made to connect the essential facts of physiology with the everyday life of children. With the better training of teachers in this subject and the advent of the "reformed" textbooks there is reason to expect that children will acquire useful knowledge and real interest in matters of health and right living.

This volume is very attractive, the material is well selected, and the illustrations are very good, particularly those in color. The most important points to be remembered are given due emphasis in a well-arranged summary at the end of every chapter.

A list of simple experiments described in the last chapter will prove helpful in teaching the application of the principles of elementary physiology.

Simple measures are described for the treatment of accidents "before the doctor comes." The material in this section is well selected and clearly presented, except the procedure recommended for use in drowning accidents, which is one requiring too much time and which for that reason would rarely prove successful.

Advanced Physiology and Hygiene. By HERBERT W. CONN AND ROBERT A. BUDINGTON. New York: Silver, Burdett & Co., 1909. Pp. 419. $1.10.

The remarkable development of popular interest in hygiene and sanitation during the last few years has created a large demand for a change in the methods of teaching physiology and hygiene in the schools. The textbooks in use a few years ago are now obsolete and unsatisfactory. They contain a description of elementary anatomy and physiology supplemented by dogmatic rules for hygienic living, with a disproportionate emphasis on the evil effects resulting from the use of alcoholic beverages and narcotics.

The subject of community hygiene has been ignored almost entirely. Such important topics as the cause and nature of common diseases; the ways in which germ diseases are transmitted; the defenses against disease; the significance of vaccination, isolation, and quarantine; the reasons for inspection of water, milk, and other foods have been omitted from the school books.

This book fulfils admirably the requirements for a high-school textbook of physiology and hygiene. The essential points of anatomy are given as a basis for the description of the various functions. The important facts relating to the common diseases are correlated with a sane discussion of the hygienic care of each organ and the body as a whole. The treatment is clear and concise and so related to the experiences of everyday life that the book cannot fail to interest students in the care of their health.

The fundamental principles of community hygiene are given in the last chapter under the title of "The Control of Public Health." This includes a consideration of the home, public cleanliness and decency; purity of foods offered in the markets, water and ice; sewage, and dangerous and unwholesome occupations.

The illustrations and diagrams are very good, but the book would be even better with more pictures and diagrams. The lack of charts, models, and other material for objective teaching of physiology in schools makes it desirable to illustrate textbooks as much as possible.

There is good reason to believe that this book will contribute very materially to the improvement that is sorely needed and much desired in the teaching of physiology and hygiene to high-school students.

GEORGE L. MEYLAN

COLUMBIA UNIVERSITY

American History. By JAMES ALTON JAMES AND ALBERT HART SANFORD. New York: Scribner, 1909. Pp. xvii+565. $1.40 net.

History in secondary schools has suffered much at the hands of textbook writers who presuppose an amount of knowledge and a power of thought that students of high-school age do not possess. It is therefore a pleasure to find a book written by men who understand the needs of high-school teachers and the limitations of high-school pupils, and who possess at the same time scholarship and literary skill sufficient to produce a coherent, dignified, and interesting history of the United States.

The story of the United States as James and Sanford give it is a straightforward narrative abundantly supplied with the material a young learner needs

to enable him to analyze and understand the great movements and critical occasions in our colonial and national life. The writers' grasp of their subject is such that this material is organically related to the story, not relegated to footnotes or to separate sections or chapters. We have histories which treat the subject satisfactorily on the political and the military and sometimes on the constitutional side; we have books which contain admirable chapters on social and industrial conditions; but it would be hard to find a textbook for young people which presents the story of our national life with such a well-proportioned blending of all these phases as we find in this book of Professors James and Sanford. It is as if a composite of minds had worked to present a unified whole. The explanation of this peculiar excellence would seem to lie in the rounded scholarship and balanced experience of the authors.

Among the most convincing pages in the book are those which treat of the War of 1812, the difficult subject of Reconstruction, and the period since the Civil War. The necessary connections with European affairs are clearly set forth, and a refreshingly small amount of time is given to wars with the Indians. The short correlated table (Appendix I) indicating certain correspondences between colonial and national forms of government is helpful and might well have been worked out further. The value of the book to those who combine the teaching of history and civics would have been increased if in addition to the Constitution the Appendix could have contained the Declaration of Independence and the Articles of Confederation. But it is ungracious to pick flaws in so excellent a book.

DORA WELLS

CHICAGO NORMAL SCHOOL

The Great Design of Henry IV, from the Memoirs of the Duke of Sully, and *The United States of Europe,* by EDWARD EVERETT HALE. Edited by EDWIN D. MEAD. Published for the International School of Peace. Boston: Ginn & Co., 1909. Pp. xxi+91. $0.50 net; postage 5 cents.

It is a matter of regret that this little book is published in the form it is. If it were issued by the International School of Peace as a confessedly Utopian design for the promotion of universal peace, the criticism might not lie. But it is issued as if the "Great Design" of Henry IV had a basis in historical facts. This is false education. Mr. Edwin D. Mead has written a foreword for it, in which he declares the plan to have been "practical" and waves aside the "controversial literature" upon the subject as without weight. But is this just? Is it intellectually honest to seek to perpetuate as an historical fact what has conclusively been proved to have been a chimera of the dotard brain of the duke of Sully? One cannot establish right by perpetuating error. Sully's account has no basis in fact. The silence of every contemporary writer of the period, the fact that not a single document exists in support of the thesis, Sully's own notorious untrustworthiness, are facts which cannot be disclaimed. These are external criticisms. Internal criticism is even more damaging. Sully's *Memoirs* are self-contradictory upon this as well as upon many other things of the reign of Henry IV. The evidence is strong that the "design" was Sully's own, not Henry's, and was conceived years after Henry's death. Finally,

Sully invents not merely ideas, he invents his "facts." Sully has much to say of an alleged interview with Elizabeth at Dover in September, 1601, and of the part she played in forming the "Great Design." Now it has been conclusively proved that no such interview ever took place. The itinerary of Elizabeth for the whole month of September is known, and she was not at Dover at all at the time alleged. His trip to England took place in Sully's own brain only. Space does not permit further demonstration. The reader is referred to the elaborate series of critical articles upon the *Oeconomies royales* by Professor Charles Pfister of the Sorbonne, in the *Revue historique,* Vol. LIV, p. 300; Vol. LV, pp. 67, 291; Vol. LVI, pp. 39, 304. Sully's *Great Design of Henry IV* is a species of Utopian literature, though not so represented. As such it did stimulate the writing of other peace literature, and this is its only value. But that value in the present book is minimized by the attempt to perpetuate the old and vicious error that the "Great Design" had an actual basis in historical facts.

JAMES WESTFALL THOMPSON

THE UNIVERSITY OF CHICAGO

Ideals of the Republic. By JAMES SCHOULER. Boston: Little, Brown & Co., 1908. Pp. xi+304. $1.50.

According to the preface, the purpose of this volume is to trace out those fundamental ideas, social and political, to which America owes peculiarly her progress and prosperity, and to consider the application of those ideas to present conditions. There are twelve chapters on such topics as "The Rights of Human Nature," "Civil Rights," "Political Rights," "Government by Consent," "Three Departments of Government," "Parties and Party Spirit," "The Strife to Succeed," etc. The book will prove stimulating to teachers of history, but is beyond the comprehension of the ordinary high-school pupil.

M. W. JERNEGAN

THE UNIVERSITY OF CHICAGO

BOOKS RECEIVED

EDUCATION

Games for the Playground, Home, School, and Gymnasium. By JESSIE H. BANCROFT. New York: Macmillan, 1909. Pp. vii+456. Illustrated. $1.50 net.

How Two Hundred Children Live and Learn. By RUDOLPH R. REEDER. New York: Charities Publication Committee, 1910. Pp. 247. Illustrated. $1.25.

Selbstbetätigung und Schaffensfreude in Erziehung und Unterricht. Mit besonderer Berücksichtigung des ersten Schuljahres. Von W. WETEKAMP. Zweite, stark vermehrte Auflage, nebst einem Anhang: Wie ich die Idee der Selbstbetätigung in 1½ jähriger Schularbeit durchzuführen suchte, von PAUL BORCHERT. Leipzig: Teubner, 1910. Pp. iv+94. 16 Tafeln. M.1.80.

ENGLISH

Masters of the English Novel. A Study of Principles and Personalities. By RICHARD BURTON. New York: Henry Holt & Co., 1909. Pp. ix+357. $1.25.

Graded Sentences for Analysis. By MARY B. ROSSMAN AND MARY W. MILLS. Second Edition. St. Louis: Little and Becker Printing Co., 1910. Pp. 77.

The Mechanics of Writing. A Compendium of rules regarding manuscript-arrangement, spelling, the compounding of words, abbreviations, the representation of numbers, syllabification, the use of capitals, the use of italics, punctuation, and paragraphing. By EDWIN C. WOOLLEY. Boston: D. C. Heath & Co., 1909. Pp. xxxi+396. $1.00.

Lyell's Travels in North America in the Years 1841–42. Abridged and edited by JOHN P. CUSHING. (Maynard's "English Classic Series.") New York: Charles E. Merrill Co., 1909. Pp. 172. $0.30.

Select Essays of Elia. By CHARLES LAMB. Edited with an Introduction and Notes by JOHN F. GENUNG. ("Gateway Series," edited by HENRY VAN DYKE.) New York: American Book Co., 1909. Pp. 264. $0.40.

HISTORY AND CIVICS

Elementary History of the United States. By WILBUR F. GORDY. New York: Scribners, 1909. Pp. xvii+315. With maps and illustrations.

Selected Articles on the Commission Plan of Municipal Government. Compiled by E. CLYDE ROBBINS. (Debaters' Handbook Series.) Minneapolis: The H. W. Wilson Co., 1909. Pp. ix+168.

SCIENCE

Manual of Physical Geography. By FREDERICK VALENTINE EMERSON. New York: Macmillan, 1909. Pp. xvii+291. With diagrams. $1.40 net.

The Principles of Soil Management. By T. LYTTLETON LYON AND ELMER O. FIPPIN. New York: Macmillan, 1909. Pp. xxxiii+531. Illustrated. $1.75 net.

The School Garden Book. By CLARENCE M. WEED AND PHILIP EMERSON. New York: Scribners, 1909. Pp. ix+320. Illustrated.

Questions in School Hygiene. By GUY MONTROSE WHIPPLE. (*Cornell Study Bulletins for Teachers.* Edited by CHARLES DEGARMO. No. 4.) Syracuse: C. W. Bardeen, 1909. Pp. 88.

MISCELLANEOUS

Philosophy as a Science. A Synopsis of the Writings of Dr. Paul Carus. Containing an introduction written by himself, summaries of his books, and a list of articles to date. Chicago: The Open Court Publishing Co., 1909. Pp. ix+213.

Wilhelm Viëtor and Franz Dörr's Englisches Lesebuch, Unterstufe Part I. Phonetic transcription. By E. R. EDWARDS. Second Edition. Leipzig: Teubner, 1908. Pp. x+76. M.2.20.

100 Poems for Children (with Proverbs, Maxims, and Tunes). Collected and Phonetically Transcribed by G. NOËL-ARMFIELD. Illustrations by PHYLLIS ASHBY. Leipzig: B. G. Teubner, 1909. Pp. 106. M. 2.

Cecil Rhodes and His Scholars as Factors in International Conciliation. By F. J. WYLIE. (*International Conciliation,* December, 1909, No. 25.) New York: American Association for International Conciliation, 1909. Pp. 14.

C. L. A. Picture List. Compiled by the Committee on Pictures for Libraries of the California Library Association, ANNA MCC. BECKLEY, *Chairman.* A list of 500 well-known pictures, with annotations chosen from easily verified and familiar sources, classified under the heads of Architecture (Egyptian, Western Asian, Greek, Roman, Early Christian, Byzantine, Romanesque, Gothic, Renaissance, Modern, Spanish Renaissance, Oriental, Oriental-Saracenic, and Central American—150 titles), Sculpture (Egyptian, Western Asian, Greek, Renaissance, Modern—100 titles), and Painting (Italian, German, Flemish, Dutch, Spanish, Modern—250 titles). Los Angeles: California Library Association, 1908. Pp. 82. $0.25 postpaid.

Elsie and the Arkansaw Bear. Told in Song and Story by ALBERT BIGELOW PAINE; in Pictures by FRANK VER BECK. Philadelphia: Henry Altemus Co., 1909. Pp. 253. $1.00.

Complete Textbook of Phono-Stenography. Being a method of shorthand writing by sound based upon cursive characters and the general principles underlying the most advanced graphic systems, for self-instruction and use in public and private schools. Part I. Corresponding style. By F. O. DETTMAN. Third edition, revised and enlarged. New York: G. E. Stechert & Co., 1909. Pp. viii+112. $1.00 net.

CURRENT EDUCATIONAL LITERATURE IN THE PERIODICALS[1]

IRENE WARREN
Librarian, School of Education, The University of Chicago

ADAMSON, J. W. The history of education as a professional study. Educa. T. 62:489–92. (D. '09.)

(An) ancient Quaker school. Journ. of Educa. (Lond.). 41:850–56. (D. '09.)

ANGIER, ETHEL M. A new plan of teachers' annuities. Educa. 30:229–33. (D. '09.)

BALDWIN, W. A. The high school, its weaknesses and suggested modifications. Journ. of Educa. (Bost.) 70:505–7. (2 D. '09.)

BENNETT, CHARLES A. Visiting manual training schools in Europe—II. Man. Train. Mag. 11:109–34. (D. '09.)

BOWEN, CLARENCE WINTHROP. Congress of American scholars. Harp. W. 101:24, 25. (25 D. '09.)

BOYER, JACQUES. Ninth annual Lepine exhibition of toys in Paris. Sci. Amer. 101:468. (18 D. '09.)

BRANNON, MELVIN A. Higher education and the farm. Educa. R. 38: 451–60. (D. '09.)

BUTLER, NICHOLAS MURRAY. The American college under fire. Educa. R. 38:515–21. (D. '09.)

CALDWELL, OTIS W. Natural history in the grades. El. School T. 10: 157–62. (D. '09.)

CAMP, WALTER. Personality in football. Cent. 79:442–57. (Ja. '10.)

COCKERELL, T. D. A. The Darwin celebration at Cambridge. Pop. Sci. Mo. 76:23–31. (Ja. '10.)

COURTIS, S. A. Measurement of growth and efficiency in arithmetic. El. School T. 10:177–99. (D. '09.)

[1] Abbreviations.—Cent., Century Magazine; Educa., Education; Educa. R., Educational Review; Educa. T., Educational Times; El. School T., Elementary School Teacher; Good Housekeep., Good Housekeeping; Harp. W., Harper's Weekly; Ind. Educa., Indian Education; Journ. of Educa. (Bost.), Journal of Education (New England); Journ. of Educa. (Lond.), Journal of Education (London); Journ. of Geog., Journal of Geography; Lit. D., Literary Digest; Liv. Age, Living Age; Man. Train. Mag., Manual Training Magazine; New Eng. Mag., New England Magazine; Out., Outlook; Pop. Sci. Mo., Popular Science Monthly; School R., School Review; School W., School World; Sci. Amer., Scientific American; Scot. Geog. Mag., Scottish Geographical Magazine; Tech. World Mag., Technical World Magazine.

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CRAWLEY, A. E. Physical education. School W. 11:446–48. (D. '09.)
Culture and training. Liv. Age. 46:52–54. (Ja. '10.)
DAVENPORT, EUGENE. Industrial education a phase of the problem of universal education. Man. Train. Mag. 11:135–48. (D. '09.)
DAVIS, BENJAMIN MARSHALL. Agricultural education: United States Bureau of Education. State Department of Education. State legislation. El. School T. 10:163–76. (D. '09.)
DODD, ALVIN E. Better grammar grade provision for the vocational needs of those likely to enter industrial pursuits. Man. Train. Mag. 11: 97–107. (D. '09.)
DOGHERTY, CHARLOTTE E. School management. Educa. 30:207–9. (D. '09.)
DUNN, S. O. A school for railroad managers. Tech. World. Mag. 12: 502–8. (Ja. '10.)
EARHART, LIDA B. Department of elementary school problems: an experiment in teaching children to study. Educa. 30:234–44. (D. '09.)
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FITZPATRICK, FRANK A. William Torrey Harris: an appreciation. Educa. R. 39:1, 2. (Ja. '10.)
GILBEY, WALTER. The educative value of the modern museum. Liv. Age. 46:18–26. (Ja. '10.)
GORDON, MALCOLM KENNETH. The reform of school athletics. Cent. 79: 469–71. (Ja. '10.)
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Harvard's eleven-year-old freshman. Lit. D. 39:1033–37. (4 D. '09.)
HINSDALE, ELLEN C. Coeducation again. School R. 18:36–39. (Ja. '10.)
KELSEY, FRANCIS W. The fifteenth Michigan classical conference. School R. 18:40–42. (Ja. '10.)
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LYONS, H. G. The scope of modern geography. Scot. Geog. Mag. 25: 617–35. (D. '09.)
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ORMSBEE, MARY R. Household science in New York. Good Housekeep. 50:3–11. (Ja. '10.)

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———. Education in India. School W. 11:457–59. (D. '09.)

———. Teachers and the religious lesson. Educa. R. 39:32–52. (Ja. '10.)

SALISBURY, ROLLIN D. The teaching of geography—a criticism and a suggestion. Journ. of Geog. 8:49–55. (N. '09.)

SCOTT, COLIN A. Social education. Educa. 30:210–15. (D. '09.)

SISSON, EDWARD O. Genius of the American high school (II). Educa. R. 38:469–84. (D. '09.)

SMITH, DAVID EUGENE. The International Commission on the teaching of mathematics. Educa. R. 38:507–14. (D. '09.)

SNEDDEN, DAVID. Educational tendencies in America. Educa. R. 39:13–31. (Ja. '10.)

STEVENSON, JOHN J. College diversions. Pop. Sci. Mo. 76:71–75. (Ja. 10.)

STRUNSKY, SIMEON. College contests of the future. Cent. 79:458, 459. (Ja. '10.)

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TERMAN, LEWIS M. The pathology of school discipline: being a chapter out of the annals of flagellation. New Eng. Mag. 41:479–84. (D. '09.)

THOMPSON, F. V. The commercial high school and the business community. School R. 18:1–11. (Ja. '10.)

WEEKS, IDA AHLBORN. Notes on sectarianism in higher education. Educa. R. 39:82–93. (Ja. '10.)

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WILLARD, EUGENE BERTRAM. The study of the child. Educa. 30:216–19. (D. '09.)